

Chilton's MOTOR AGE

TECHNOLOGY DEPT.

JULY 1955

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DETROIT

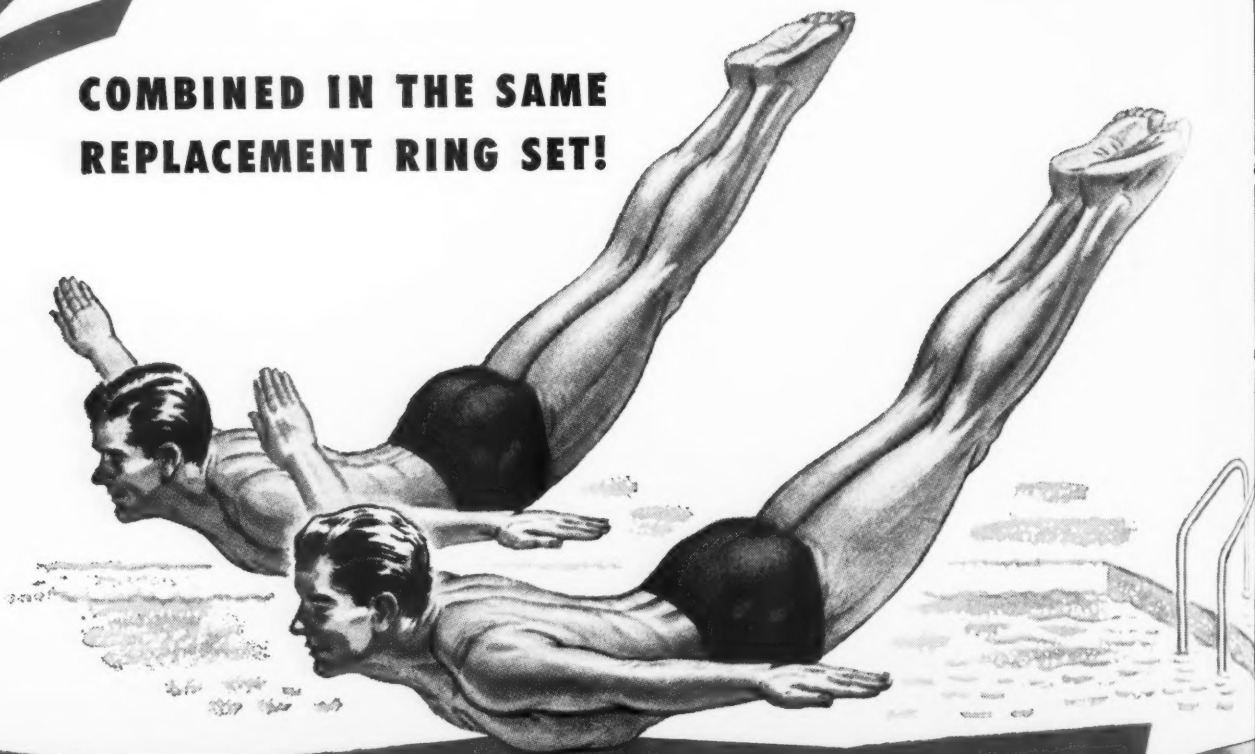


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Where Replacement Parts Are Needed

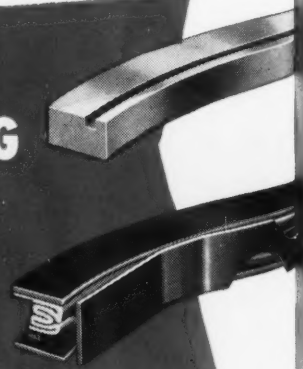
2 TOP PERFORMERS

COMBINED IN THE SAME
REPLACEMENT RING SET!



1 A FAST SEATING COMPRESSION RING

2 A SOFT PRESSURE OIL RING



1 The Hastings torsional is a compression ring that seats *right now*. Its torsional action brings it into a quick seat and perfect wall bearing in any cylinder—tapered, out-of-round or re-bored.

2 The Hastings Steel-Vent is an oil ring that stops oil-pumping immediately. It's a *soft pressure* ring with the light inner-spring developed by Hastings. It delivers the extra lubri-

cation that older engines must have—and with complete oil control and economy.

Here are two *top performers* in the same "Motor Engineered" set . . . built by replacement ring specialists.

You don't get come-backs due to cylinder scuffing and slow-seating when you install Hastings Steel-Vent sets. You get positive, quick performance that makes car owners happy.

HASTINGS MANUFACTURING COMPANY, HASTINGS, MICHIGAN • HASTINGS LTD., TORONTO

Piston Rings, Casite, Oil Filters, Spark Plugs, Wear Reducer

*TOUGH but oh so gentle



HASTINGS

STEEL-VENT PISTON RINGS
Regular or Chrome-Faced

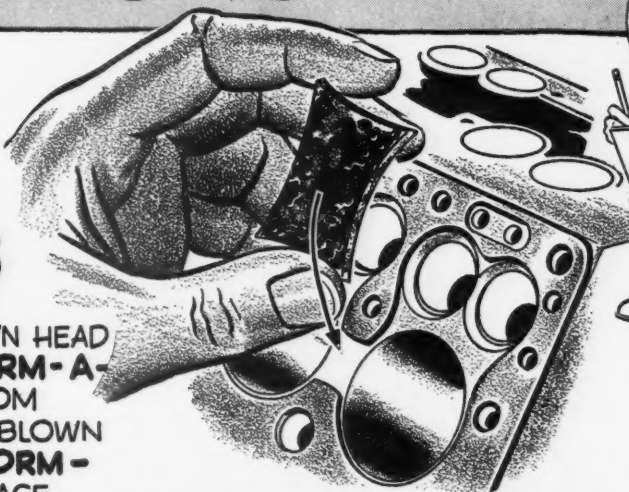
* Tough on oil-pumping . . . Gentle on cylinder walls

SERVICE TIPS

FROM
PERMATEX

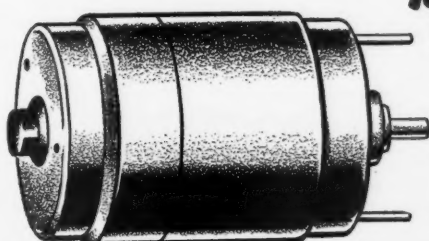


PATCHING HEAD GASKETS



EMERGENCY REPAIRS FOR A BLOWN HEAD GASKET CAN BE MADE WITH **FORM-A-GASKET No. 1**. CUT A PIECE FROM ANOTHER GASKET TO MATCH THE BLOWN SPOT. COAT GENEROUSLY WITH **FORM-A-GASKET No. 1**. FIT INTO PLACE AND REASSEMBLE.

MOISTURE PROOFING FOR SEALED ELECTRIC MOTORS



ELECTRIC MOTORS OF THE SEALED TYPE CAN BE MADE MOISTURE-PROOF WHEN REASSEMBLED AFTER REPAIR BY COATING MOTOR AND SEALED FLANGES AND GASKETING ASSEMBLY JOINTS WITH **FORM-A-GASKET No. 2**



STOP "SHOCKS" FROM PLASTIC SEAT COVERS

PAINT A NARROW BAND OF **FORM-A-GASKET No. 3** FROM THE RIM OF ONE WHEEL TO THE CENTER OF THE TIRE TREAD. SPRAY WITH POWDERED GRAPHITE. FORMS A "GROUND" THAT ELIMINATES "SHOCK".

MORE THAN 50 CHEMICAL PRODUCTS
FOR BETTER AUTOMOTIVE MAINTENANCE



Form-A-Gasket withstands the enormous pressures of modern high compression engines. It is unaffected by gasoline, hot or cold oil, grease and water, anti-freeze. Always say PERMATEX Form-A-Gasket when you order sealing compound.

EVERY SHOP NEEDS ALL THREE TYPES

No. 1 — Sets quickly. Dries hard.

No. 2 — Sets slowly. Remains pliable.

No. 3 — Brushable. Sets to a paste. Remains tacky.

FORM-A-GASKET®

PERMATEX COMPANY, INC., BROOKLYN 35, N. Y. • KANSAS CITY 15, KAN.

The new 44 model tractor is only
 and the flexibility
 and there are no
 On the whole, it is
 for there was a big
 of tractors before
 handful of men
 However, subsequently
 of the proper wide
 the early history of
 garden tractor in-
 quired, complicated
 name of different
 a shockdown in
 patterns and quite
 to further shake-
 Of the ten firms
 immediate past
 these do not have
 or have been ab-
 discarded while the
 measured while the
 have been growing
 have some growing
 the roots, the gar-
 den wheels with
 the place of the
 grant. It seldom
 some power or ten-
 sity all the little
 their origin from
 the tractors of
 legs & struts
 take a mechanical
 the distance, it is
 tractor from
 that up close is a
 sometimes are ap-
 and that differ-
 of a garden are
 named. Some of the
 equivalent of the
 tractor at like an
 on a new wheel
 tractor, and more
 the wheels as all
 the engine among
 that a high
 with a high
 that is oper-
 operation of one
 kind, sometimes
 of the types of
 why for ac-
 the land. No
 showed, "Com-
 lower may be
 tractor has the
 "



Clean across the country
— only Texaco Dealers offer you these services!



TOURING SERVICE all over America! Before your trip, tell your Texaco Dealer where and when you're going and what you want to see. He will gladly get for you maps with routes indicated. During your trip, Texaco Dealers all along the way will add a lot to the success of your trip!



REGISTERED REST ROOMS wherever
you drive! Smart drivers stop where they
see this familiar green and white sign.
It is a symbol of cleanliness you can count
on wherever you drive. Motoring families
constantly write and tell us how they appreciate
Registered Rest Rooms — a Texaco Dealer Service
— clean across America!



CREDIT CARD CONVENIENCE
 nationwide! More than a million motorists find their Texaco National Credit Cards mighty convenient. It's the perfect way to conserve cash, and to keep track of their trips. And — it's the only petroleum credit card honored under one sign from coast to coast. Good in Canada, too — under the same sign . . . the red star with the green T.





TEXACO DEALERS
in all 48 states

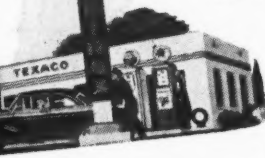
Teneco Products are also distributed
in Canada and Latin America



TOP CAR PERFORMANCE coast to coast!

Texaco Dealers are one-stop car-care specialists! They have a complete line of tires, batteries and accessories. And — top petroleum products: Texaco Motor Oil. And — top Petroleum products: Texaco Petrol to give you more power, greater gasoline mileage, and longer engine life... famous Fire Chief gasoline, for lively power at regular gasoline prices... Advanced Custom-Made Havoline Motor Oil... Mafak chassis lubrication.



THREE IN... TEXACO STAR THEATER starring
DONALD O'CONNOR and HENRY DUNSTON
on television, Saturday nights, NBC.

TARGET: 30 MILLION TOURISTS!

Summertime is *touring* time. More than 30 million Americans will be getting out on the road — and thousands of Texaco Dealers will be getting in on the profits. For this year, Texaco is aiming the biggest national advertising barrage right straight at these motoring families in all 48 states. Here's the line-up: full-page, full-color national magazine ads . . . the Durante-O'Connor TV shows . . . 5-minute newscasts around the clock every week-end on the powerful 346-station ABC Radio Network . . . and thousands of billboards from coast to coast.

No wonder **TEXACO DEALERS** are such busy dealers!



Chilton's MOTOR AGE

WITH WHICH IS COMBINED AUTOMOBILE TRADE JOURNAL

Reg. U. S. Pat. Off.

For THE AUTOMOTIVE SERVICE INDUSTRY

LXXIV, No. 8

July, 1955

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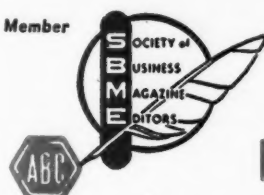
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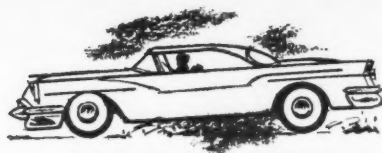
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When Front-End Sag



causes this



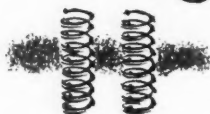
... To give your

customers a lift



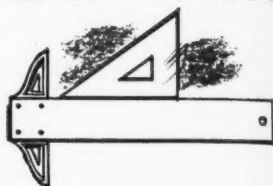
Install Moog

Coil Springs



designed with

a Built-in Overload Factor



Thousands of extra easy-riding miles are built into every pair of Moog Coil Springs.

Why? Because they're designed with a *Built-in Overload Factor* to perform better under *all* driving conditions.

Avoid ordinary coil springs: Unlike Moog Coil Springs which are engineered specifically for the replacement market, ordinary springs do not compensate for worn and overstressed suspension parts in older cars. Results: ordinary springs wear out fast and ride poorly.

Avoid shims and gadgets. They kill the action of the coil and are only temporary at best.

Remember: there is one *best* way to correct Front-End Sag. *Install Moog Coil Springs in matched pairs!*



BUY MOOG COIL SPRINGS with *Built-in Overload Factor* where you see this sign... at your Moog Jobber's.

GHQ for Coil Springs
Leaf Springs • Tie Rod Ends
King Bolt Kits • Shackles
Coil Action • Piston Rings



MOOG INDUSTRIES, INC. • ST. LOUIS 14, MISSOURI

The New York Times
NOVEMBER 6, 1954.

E. I. du Pont de Nemours & Co., Inc., in a drive to stop price cutting on its fair traded Zerone and Zerex anti-freezes has taken the case to court and obtained injunctions against price cutters.

JANUARY 5, 1955

THE GASOLINE RETAILER

Fair Trade Violations in Anti-Freeze Sales Fought

Newsday

Tues. Nov. 23, 1954 Vol. 15, No. 69

Anti-Freeze Sold Cut-Rate, Discount Store Fined \$100

AUTOMOTIVE NEWS, NOVEMBER 22, 1954

DuPont Gains Court Order To Guard Antifreeze Price

With DU PONT anti-freeze you get protection against price cutting

Prompt legal action has been taken by Du Pont in states having Fair Trade laws to prevent price cutters from destroying your legitimate profits. Du Pont has taken a firm lead in nipping price cutting right in the bud. This past season, for example, various price cutters in the New York area were stopped by restraining orders issued by the New York Supreme Court. New York dealers took their hats off to Du Pont for what they termed "quick and aggressive action in its drive to protect legitimate profits."

New streamlined procedures have made this protection available in all Fair Trade areas. Attorneys with specialized experience in such cases have been retained. Thus, it is possible to obtain temporary injunctions

against price cutters within a few days following receipt of a complaint.

Assurance of legitimate profits through Fair Trade enforcement is another important benefit you get when you sell "Zerone" and "Zerex" anti-freeze. Other big selling advantages include:

- ▶ Nation-wide Du Pont "Anti-Freeze Week" Promotion
- ▶ Newspaper, magazine ads, billboards, in your own town
- ▶ Weekly "Frank Leahy and His Football Forecasts," the biggest anti-freeze TV show on the air
- ▶ Testimonials by famous motor experts
- ▶ Product advantage (chemical inhibitor) you can see for yourself

Sell the anti-freeze team that helps YOU sell!



WE'RE ON TOP

DU PONT

REG U S PAT OFF

ORDER NOW
and be listed with
WESTERN UNION
"Operator 25"

BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY



When you're
trying to
find
the
trouble . . .



Get this useful BCA Trouble Shooter's Guide. Ask your BCA—Federal-Mogul jobber for a copy. Or write us. It's free.

CHECK THE BEARINGS, TOO

Gears noisy? Car slip out of high or second? Frequently, you'll find a bad transmission bearing is to blame.

This new Trouble Shooter's Guide helps trace many hard-to-locate differential, wheel, generator, transmission, and clutch troubles to worn or defective bearings. Helps you win and hold customers.

THE RIGHT AUTOMOTIVE REPLACEMENT BEARINGS ARE EASIER TO INSTALL

BCA ball bearings are designed for automotive replacement service. They're not nearly right—they're exactly right. And your BCA—Federal-Mogul jobber knows automotive bearings—knows your problems—speaks your language.



Federal-Mogul Service
(Division of Federal-Mogul Corporation)
DETROIT 13, MICHIGAN



"See For Yourself How

LION

Nōkōrōde

**UNDERCAR SEALER
AND SILENCER**

- ✓ **Sprays on Quicker**
- ✓ **Saves Time,
Trouble, Money!"**

**50% More Undercoating
Jobs from Every Drum**

Check these facts, and you'll quickly see how Lion Nokorode Undercar Sealer and Silencer can build *extra* profits for you. Nokorode...

- Is sprayed on thinner ($\frac{1}{16}$ ")
- Dries faster
- Lasts longer
- Goes farther
- Is concentrated
- Is preferred by spray men, because both application and clean-up are easier
- Is guaranteed by Lion Oil Company

*Made under the process of U. S. Patent No. 2393774,
and made from start to finish by Lion Oil Company.
Send for complete details NOW!*



LION OIL COMPANY
EL DORADO, ARKANSAS



Lion Oil Company
Dept. MA-G
El Dorado, Arkansas

Please send me complete information about Lion Nokorode, and how it can increase underbody coating profits. No obligation, of course.

Name _____

Street _____

City _____ State _____

CHAMPIONS SCORE INDIANAPOLIS "500"

Out of the thunder and glory of the world's greatest race again comes an extra, added sales advantage for all Champion merchandisers . . . an advantage that your competition can only envy: *the twenty-fifth Indianapolis victory for Champion Spark Plugs!* Champion's remarkable record in the "500" puts you in the driver's seat, because motor-minded Americans know that Indianapolis is "The Big One" . . . that it is the toughest, most impartial test of automotive equipment. And they know that to win year after year at Indianapolis a product must be the world's best! Champion's twenty-fifth victory certainly nails it down!

This is potent sales ammunition and it's all yours! As an alert, aggressive Champion merchandiser you'll put it to good use, I know.

DISPLAY the Champion Indianapolis poster prominently!

TALK UP the Champion record with your customers!

SELL them on the fact that Champion's racing success means better spark plugs for today's modern engines and high-test fuels—that a set of new Champions is a sure-fire way to make any car a winner in performance, economy and all-round motoring satisfaction!

Sincerely,



25th VICTORY IN

**World's top merchandisers again
get annual sales promotion bonus
as CHAMPIONS sweep greatest
test of spark plug performance!**

**BOB SWEIKERT, the winner, and
ALL OTHER FINISHERS used
CHAMPION SPARK PLUGS!**

**Sweikert's winning speed:
128.209 M.P.H.!**



RIDE THE WINNER . . .

TO GREATER SPARK PLUG

SALES AND PROFITS!

INCREASING DEALER PROFITS EVERYWHERE!

The *Raybestos*

7 POINT BRAKE CHECK

1. Pull front wheels and inspect linings
2. Check brake drums
3. Inspect front wheel bearings
4. Clean brake assembly
5. Check hydraulic system
6. Adjust brakes
7. Road-test brakes

And with the Raybestos Plan you can charge for every check you make!

This is the complete new Raybestos selling "package" that is pulling in the brake work

USE IT TO INCREASE YOUR BRAKE SERVICE BUSINESS



POWERFUL NATIONAL ADS like this one are urging car owners to get the Raybestos 7-Point Brake Check. Tie in with them. Let them increase your business, too. This new brake service profit plan is really moving the famous products shown at the right. Watch for these ads to run.



LARGE OUTSIDE BANNER



PENNANTS



SHOP POSTER



CAR OWNER CHECK CARDS



BRAKE SERVICE GUIDE

ENVELOPE STUFFERS



DECALCOMANIA



DEALER WALL CERTIFICATE



JUMBO POST CARDS



BUTTONS FOR STATION ATTENDANTS



CAR OWNERS CERTIFICATES



RAYBESTOS LINED SHOES "CONTOUR GROUND" A special process developed by Raybestos. The shoes are carefully ground for proper belly contact . . . inherent springiness of shoe assures correct contact at heel and toe. No spongy pedal action—no high spots.



RAYBESTOS PG SETS All Raybestos Brake Linings are Proving Ground Tested for greater highway safety. And only Raybestos linings are made by 7 different manufacturing processes to assure just the right combination for every make and model car.

→ GET WITH IT, DEALERS. THIS PLAN HAS REALLY GOT IT! (see your jobber for details)

Raybestos
AMERICA'S BIGGEST SELLING BRAKE LINING

RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., BRIDGEPORT, CONN.



RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks Clutch Facings • Fan Belts • Radiator Hose • Industrial Rubber, Engineered Plastic, and Sintered Metal Products • Rubber Covered Equipment • Asbestos Textiles • Packings • Abrasive and Diamond Wheels • Bowling Balls



Summer Travel-time . . . is PUROLATOR PROFIT-TIME for dealers!



Dealers can *cash in big* by using Purolator's powerful summer display package . . . and TALKING IT UP. Here's why:

1. **More Miles!** This summer more motorists will drive *more miles* than ever. Since car makers recommend a new filter every 4000 to 5000 miles, this means bigger and bigger Purolator sales.

Watch MILEAGE and TALK IT UP!

2. **More Dirt!** Every mile a car is driven it breathes in dirt. With more motorists driving more miles, this means more oil and filter-changes.

Watch oil-changes and . . . TALK IT UP!

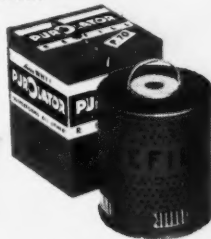
3. **More Trips.** You can sell oil and a new Purolator when the customer *starts out* . . . and when he *gets back* . . . get your customers *going and coming*.

Watch Vacation Plans and . . . TALK IT UP!

REMEMBER! Purolator Micronic is **FIRST** and **FINEST** . . . Specified by more car makers than any other oil filter . . . Often **IMITATED—NEVER EQUALLED** . . . Engineered to fit **ALL makes and models**.

"Purolator" and "Micronic,"
Reg. U. S. Pat. Off.

PurOlator

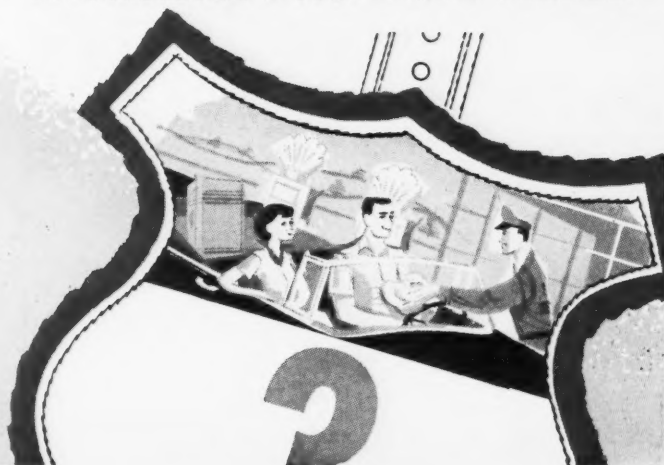


. . . America's No. 1 OIL FILTER



See that all your dealers have copies of the PUROLATOR Service Manual. 20 fact-packed pages about Purolators and how to change them. A real time-saving **MONEY MAKER!**

PUROLATOR PRODUCTS, INC.
Rahway, New Jersey
and Toronto, Ontario, Canada.



How Ethyl gets the most mileage

When Ethyl decided to put the new "Drive More" campaign on the road, they faced a two-way problem. They needed to get their story to as many car owners as possible, telling them driving gets cheaper every mile. At the same time, they wanted complete coverage of the automotive industry.

It's important for automotive men — from manufacturers to dealers — to know about this program. And it's important for them to promote it in their own advertising, too. For if everyone drove a few more miles a year — think of all the extra business everyone would get!

The magazine that could do this big job with both groups — and do it best — is *The Saturday Evening Post*. It is at the top of Ethyl's special magazine list with four spreads, starting with the June 18 issue. For the Post reaches millions of car-owning, high-mileage families. And for years it has been the No. 1 showroom for the industry itself. It carries more automotive advertising than any other magazine.



—gets to the heart of America

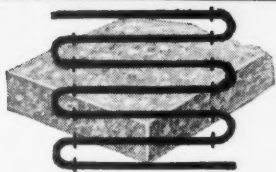


How  electronically baked cork makes better gaskets

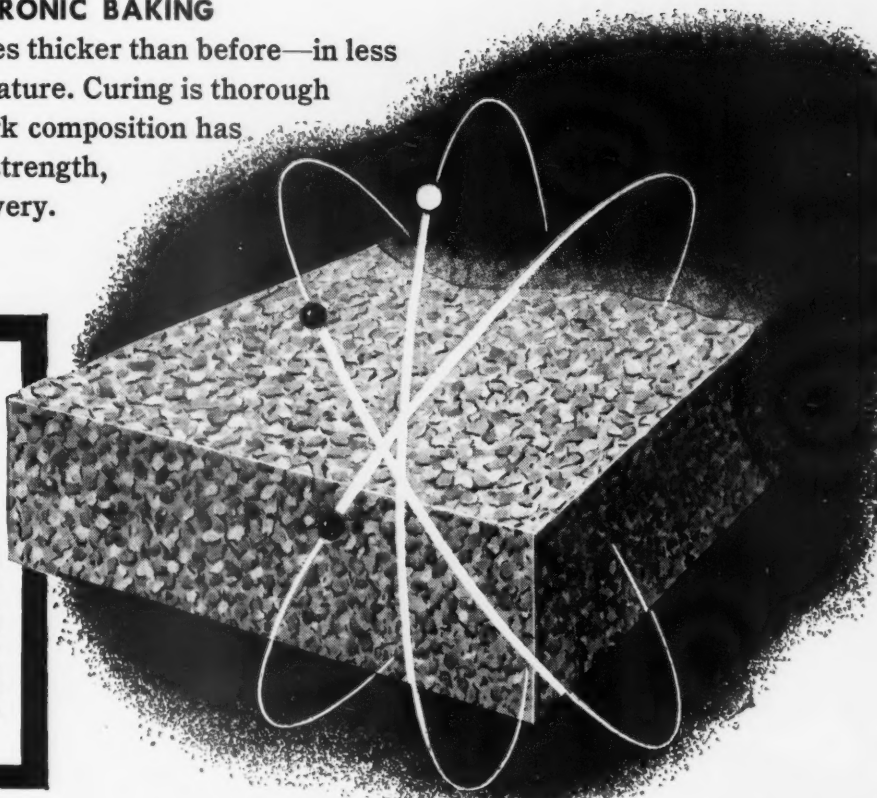
ONLY **Armstrong-Victor** HAS THIS NEW PROCESS

NEW HIGH-FREQUENCY ELECTRONIC BAKING

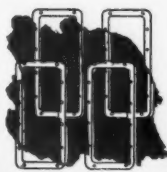
cures a 9-inch thick mat—3 times thicker than before—in less than 5 minutes, at lower temperature. Curing is thorough and uniform inside and out. Cork composition has more uniform density, tensile strength, range of compression and recovery. Color is lighter and brighter.



OLD-FASHIONED BAKING with steam coils took hours to cure a 3-inch thick cork composition mat used to make gaskets. Results were uncertain. Too often, the cork was under-cured on the inside—or over-cured on the outside. This caused widely varying density—loss of strength—reduced compression-recovery range—and poor color.



Means Better On-the-Job Values in A-V Gaskets



UNIFORM DENSITY of cork composition means gaskets are uniformly strong in every square inch . . . have better compression and recovery values . . . and thus have more "live" and lasting sealing power.



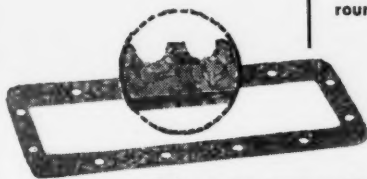
UNIFORM STRENGTH of cork composition means that A-V gaskets take shop handling without harm—are more flexible—fit better—are less likely to crack or break. They're die cut sharp and clean with round holes and straight sides.



UNIFORM COMPRESSIBILITY and recovery means that A-V cork gaskets help you make and hold a tighter seal longer than gaskets made from steam-cured cork. Tests show almost 100% uniformity of recovery.



FACTORY-FRESH TO YOU . . . In sealed, protective packages . . . the world's most complete gasket line . . . stocked by Victor Jobbers everywhere. Sold in sets or individual parts . . . for every make and model. Victor Mfg. & Gasket Co., P.O. Box 1333, Chicago 90, Illinois.



Only genuine Armstrong-Victor Replacement Cork Gaskets have this exclusive trade-mark—the 2 notches.

Armstrong-Victor

NEW! The greatest advance ever in muffler engineering!



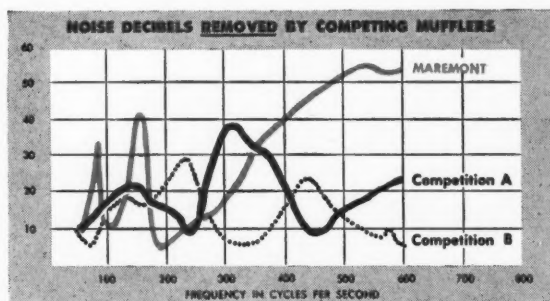
MAREMONT'S EXCLUSIVE

ELECTRONIC DYNAMOMETER

(Patent Pending)

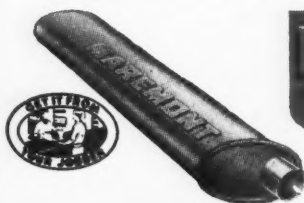
bringing you, for the first time,
TRULY "EAR CONDITIONED" MUFFLERS!

Remember this basic fact: *Mufflers were invented for only one reason — to quiet the noise of the engine.* Maremont now makes quieter mufflers than anybody else — *and can prove it* — thanks to the industry's only Electronic Dynamometer. This amazing invention tells Maremont Engineers the exact type and nature of internal construction needed for the maximum in hush performance, structural strength, engine efficiency. Only Maremont has the Electronic Dynamometer. Only Maremont makes mufflers electronically tuned, truly "Ear Conditioned"... to truly "hush" engine noise.



HERE'S PROOF:

One new 1955 engine creates two troublesome noise peaks at approximately 95 and 160 cycles per second. With the aid of the Electronic Dynamometer, Maremont engineers were able to design a muffler to remove these noise peaks — and the Electronic Dynamometer then recorded the successful results (see chart). Note that only Maremont efficiently reduces engine noise at these specific peaks.



MAREMONT MUFFLERS

The right design ... for every engine!

MAREMONT AUTOMOTIVE PRODUCTS, INC.
1600 South Ashland Avenue, Chicago 8, Illinois



insist on frenchtown insulators

... heart
of the
spark plug!



► Year after year, more than 12,000,000 spark plug insulators are shipped from the kilns at FRENCHTOWN to spark plug manufacturers all over the nation.

As the world's largest *independent* producer of spark plug porcelains since 1914, there are many reasons for the widespread acceptance of FRENCHTOWN products. Quality control is one.

For example, *every* FRENCHTOWN insulator is subjected to a rigid dielectric test (30,000 volts at 1.5 megacycles) . . . *every* insulator must pass an exacting surface inspection before and after glazing. These and other quality control measures which extend throughout all manufacturing processes help give FRENCHTOWN porcelain products the excellent dielectric and mechanical strength so essential in high voltage insulation.

Your best assurance of customer satisfaction is to be sure that the spark plugs you sell are made with FRENCHTOWN insulators. They are used by more spark plug manufacturers than those of any other independent maker of insulators.

frenchtown

PORCELAIN
COMPANY

80 MUIRHEAD AVENUE | TRENTON 9, NEW JERSEY

To **SELL**

where the selling is **EASIEST**

SELL to the **PRE-SOLD** market

SELL

MORaine
ENGINE BEARINGS

A GENERAL MOTORS PRODUCT



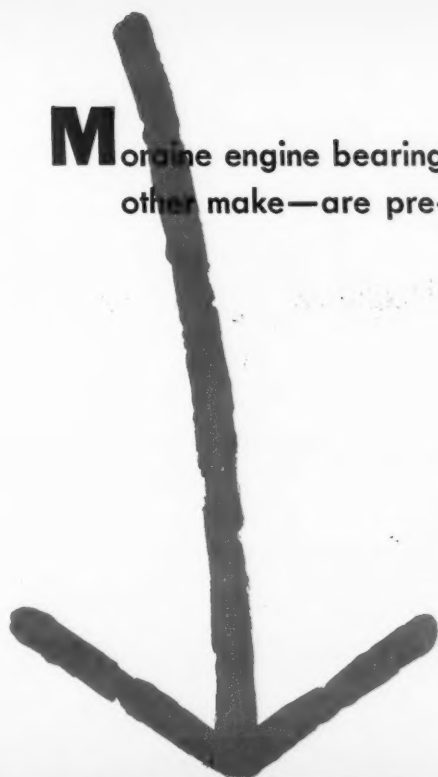
UNITED
SERVICE
MOTORS

A UNITED MOTORS LINE

DISTRIBUTED BY WHOLESALERS EVERYWHERE

Chilton's MOTOR AGE, JULY, 1955

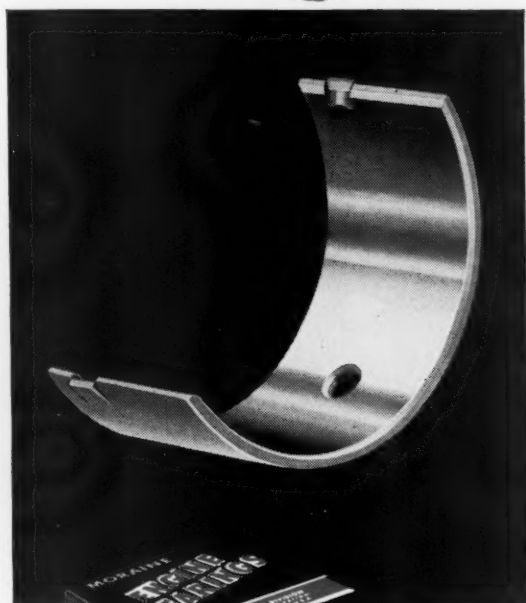
Moraine engine bearings are original equipment on more new cars than any other make—are pre-sold to half the cars and trucks that pass your door.



Here's a market you don't have to sell! Moraine engine bearings have already been sold to half the motorists you serve—in their new cars. For Moraine bearings are original equipment on more cars, including all General Motors cars and trucks, than any other make.

Leading Moraine's original equipment line is the tough M-100 (Durex) engine bearing. Especially developed for high-performance, high-compression engines, the M-100 is built by an exclusive process giving it greater durability and longer life under extreme stresses.

All Moraine engine bearings—the M-100 and the conventional steel-backed babbitt-type bearings—are built to the uniform high standards and tolerances required by original equipment manufacturers . . . are built by the world's largest manufacturer of original equipment engine bearings! For 1955 United Motors offers a complete line, with bearings to fit all cars. Moraine bearings are available everywhere through United Motors distributors.



Moraine engine bearings are attractively packaged, easily identified on your shelves.

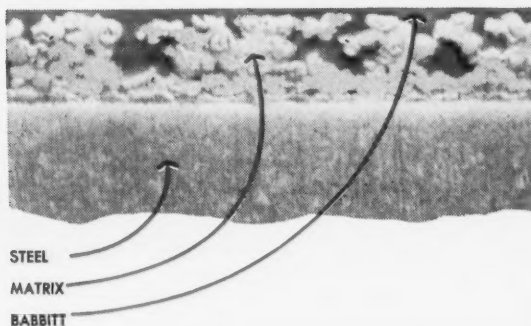


Photo-Micrograph of Cross Section of M-100 Bearing, Magnified 33 Times

THE MATRIX MAKES THE DIFFERENCE

Steel-backed intermediate matrix, of porous copper-nickel, bonds mechanically, as well as metallurgically, with thin high-lead babbitt overlay.

The exclusive Moraine matrix (or middle layer) between the babbitt and the steel back makes the M-100 8 Ways Better!

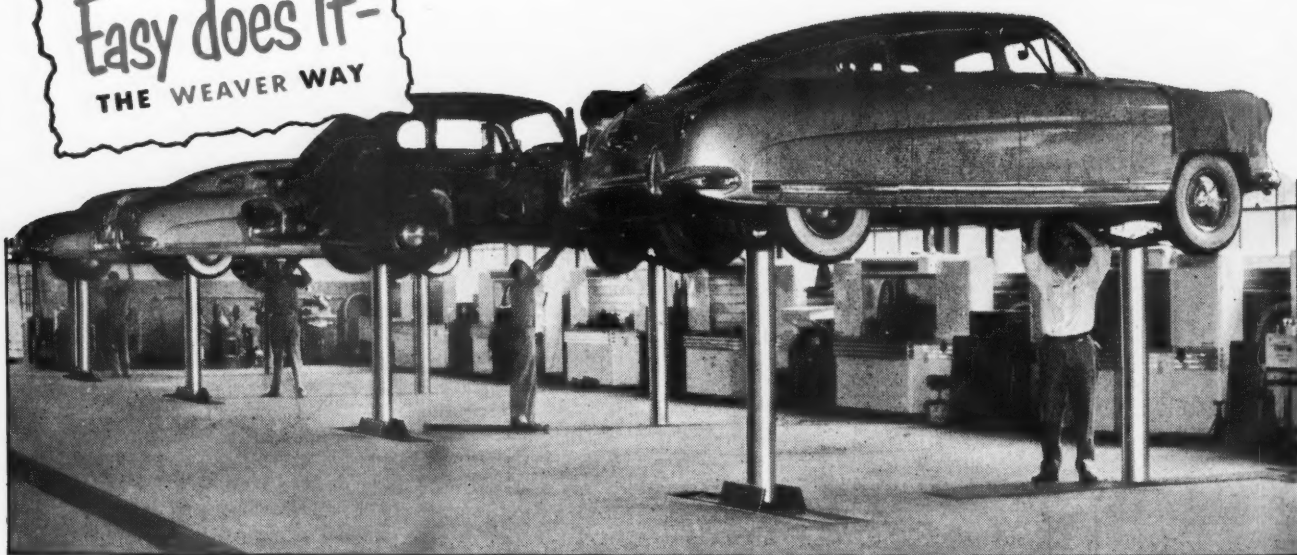
- 1 Greater resistance to fatigue
- 2 Increased load capacity
- 3 Greater conformability
- 4 Greater embedability
- 5 Stronger bond
- 6 Greater resistance to scoring
- 7 Greater resistance to corrosion
- 8 More durability



the **WEAVER** ...made in a wide range

**You can choose from 4 WEAVER types
to suit your requirements**

*Easy does it-
THE WEAVER WAY*



1 TWIN POST LIFTS

for all cars, trucks and buses

Weaver Twin Posts are the **ONLY** automotive type lifts that can handle all wheel base lengths without loss of lifting capacity. There is a range of sizes to handle any type vehicle from a small passenger car to a giant transport.

Profit-wise shops are finding that multiple Twin Post installations, as shown above, can boost production from 25% to 100%, by making each mechanic more productive. With a Twin Post,

mechanic can quickly raise vehicle to convenient working height . . . make use of independent post operation to position it at any desired angle. He obtains free, unobstructed access to all under-chassis points because there are **NO RAILS IN THE WAY**.

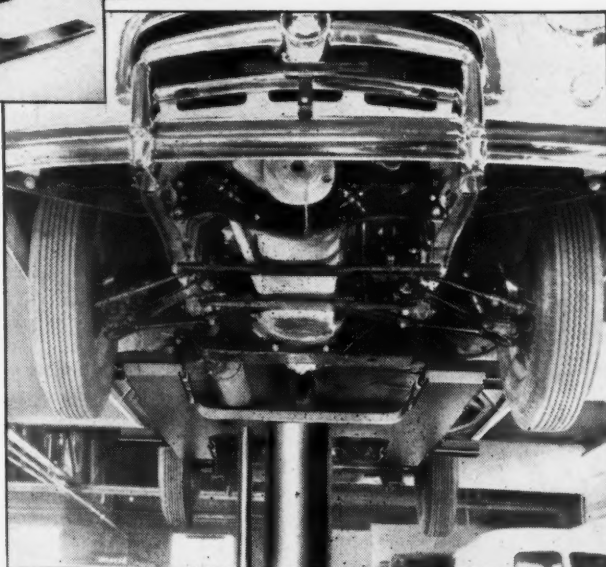
Weaver Twin Post Lifts are available air-oil or electrically operated. The model EC-100, shown, is regularly furnished with wheel base adjustment of 88" minimum and 148" maximum unless otherwise specified. Twin Posts are available in 3 sizes and 7 models to provide for every shop requirement.

line of lifts of types and sizes!

② SINGLE POST FRAME LIFTS for all passengers cars

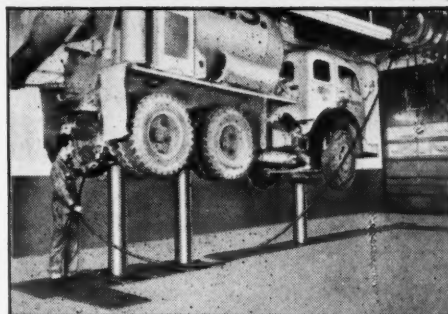
Even narrow width foreign cars can be easily raised with a Weaver Single Post Frame Lift. It permits direct drive-on positioning. Will not pinch or bruise tires. It lays flat on floor and projects only 1½" above surface when adapters are removed. Cars can be stored over it, when it is not in use.

A four-position front wheel chuck, anchored to floor, locates various wheel base length cars over lift. Floor-level "dead man" type controls permit mechanic to see adapter contact with vehicle . . . insure pin-point positioning. Lift is available in two models—air-oil operated, or electrically operated. Both are furnished complete with 8 non-slip, easy-to-use adapters, exhaust muffler, non-rotating device, wheel chuck arrangement, and "dead man" controls. Wall type controls are optional.



③ TRIPLE POST LIFTS for tractor-trailer units and vehicles with rear end weights up to 36,000 lbs.

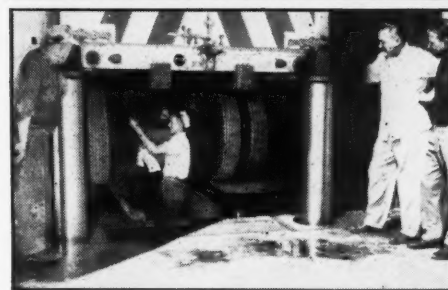
Accommodate variable dual rear-axle spacings, and support rear end weights up to 36,000 lbs. Total load capacity is 54,000 lbs. Handle any wheel base requirement through use of adjustable front and rear posts. Floor level controls permit operator to check cradling of axles. Model EC-106-3FA, shown, is electric-oil operated.



④ TRAILER INSPECTION LIFTS for fast checking and maintenance

Raise rear end of trailers high enough for wheels to clear floor. This speeds lubrication, and the adjustment of torsion springs . . . permits faster, more thorough check on the condition of tires, brakes, and wheel bearings . . . expedites servicing and replacements. Users report that the lift has eliminated 4 out of 5 roadside calls.

See your Weaver Jobber or write us for Bulletin MA-990



WEAVER

WEAVER MANUFACTURING CO., SPRINGFIELD, ILL., U.S.A.

SERVICE SHOP EQUIPMENT

Complete Weaver line includes: Twin Post Lifts . . . Single Post Frame Type Lift . . . Unit Lifts . . . Bumper Lift . . . Wheel Alignment Equipment . . . Headlight Testers . . . Brake Testers . . . Wheel Balancing Equipment . . . Jacks . . . Wheel Dollies . . . Car Washers . . . and Air Compressors.

TRADITIONALLY FIRST and FOREMOST in SPARK PLUG design...

FIRST with the one-piece heat-sealed shell construction.

FIRST in welded side electrode construction for better heat and electrical conductivity.

FIRST to incorporate a resistor element for elimination of radio interference from ignition.

FIRST with fused metal-ceramic seal to stop center-wire compression leakage.

FIRST in the use of unglazed insulator tip to resist lead attack.

FIRST with the aluminum oxide insulator in the United States—a patented AC composition!

FIRST to use greater "scavenging" area between insulator and shell. For example: Has been used in AC type 48 plug since 1944.

FIRST with the long, thin, recessed, quick-heating insulator tip—the AC Hot Tip—an AC exclusive!

The above is another in a series of messages to AC wholesalers and dealers—more proof that AC Spark Plug engineers with GM resources can be depended upon to lead the ignition parade!



AC SPARK PLUG DIVISION
GENERAL MOTORS CORPORATION
FLINT, MICHIGAN



AC

SPARK
PLUGS

STANDARD FACTORY EQUIPMENT ON MORE NEW VEHICLES THAN ANY OTHER MAKE



"I SAW THE SIGN—BUT COULDN'T STOP!"

Lucky it wasn't worse. But don't *you* trust to luck where brakes are concerned. Make *sure* your customers get full protection—always reline with genuine Grey-Rock Balanced Braksets.



When you're a Grey-Rock Dealer, you escape complaints and increase profits—with Grey-Rock Balanced Linings. For the exclusive Grey-Rock *balance* principle gives longer, more uniform brake wear—assures quiet braking action and quick, safe stops. This is the result of Grey-Rock's using many different linings in combinations engineered for each make and model—a distinctive Grey-Rock feature.



Grey-Rock provides distinctive woven and molded linings in balanced braksets and trucksets for the specially severe brake requirements of certain makes and models. Where used, woven and molded combinations provide far better brake action than molded linings alone. In other sets, special molded types are used where all-molded types give best results. This, too, is a distinctive Grey-Rock feature.

GREY-ROCK FACTORY BONDED SHOE EXCHANGE SERVICE IS THE EASY WAY TO HIGHER RELINE QUALITY, LESS LABOR PER JOB, GREATER PROFITS

Only **Grey-Rock** makes

BALANCED BRAKSET LININGS

GREY-ROCK DIVISION of Raybestos-Manhattan, Inc., MANHEIM, PA.

See your Grey-Rock jobber for
FACTORY-BONDED SHOE EXCHANGE

It's the lining that counts

Every piece branded for your protection

Consistently advertised in the

POST and Better Farming



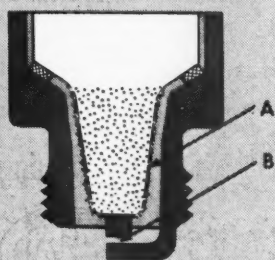
RAYBESTOS-MANHATTAN, INC.: Brake Linings • Brake Blocks • Clutch Facings • Radiator Hose
Fan Belts • Industrial Rubber, Engineered Plastic, and Sintered Metal Products • Rubber Covered
Equipment • Asbestos Textiles • Packings • Abrasive and Diamond Wheels • Bowling Balls



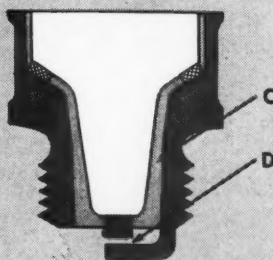


To help you is telling

*Here's the story
Auto-Lite is telling
millions in top
magazines!*



When electrical energy takes the path of least resistance following deposits over insulator tip (A)... it robs electrical energy required for proper firing at gap (B) resulting in partial combustion, hard starting and reduced gas mileage.



"IGNITION ENGINEERED" AUTO-LITE SPARK PLUGS are designed to maintain insulator tip temperatures to resist the depositing of end products of combustion at (C) allowing full utilization of spark plug energy at gap (D)... thus permitting maximum energy for proper combustion at gap. Results... top engine performance, fast getaway, sure starting.

boost profits...Auto-Lite your customers...

Your Dealer will tell you...

Fouling Penalizes

POWER

Replace with
AUTO-LITE
SPARK PLUGS

**Auto-Lite Spark Plugs
are Ignition Engineered to
minimize effects of fouling**

Auto-Lite Spark Plugs are designed and built by ignition specialists to minimize the effects of fouling in modern engines ... for the best performance money can buy.

The Auto-Lite campaign is telling millions of motorists *you* are the man to help them get top engine performance! Make sure you have the complete line of Auto-Lite Ignition Engineered Spark Plugs.

THE ELECTRIC AUTO-LITE COMPANY • Toledo 1, Ohio

AUTO-LITE MAKES A COMPLETE LINE OF RESISTOR, STANDARD, TRANSPORT AND MARINE SPARK PLUGS FOR EVERY USE



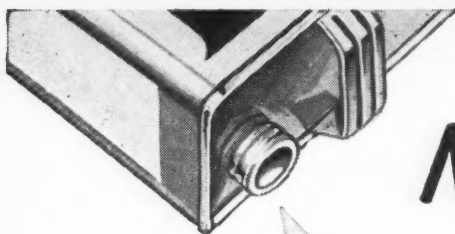
**AUTO-LITE
SPARK PLUGS**

Ignition Engineered

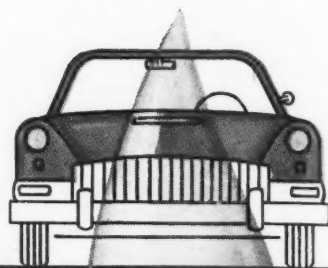
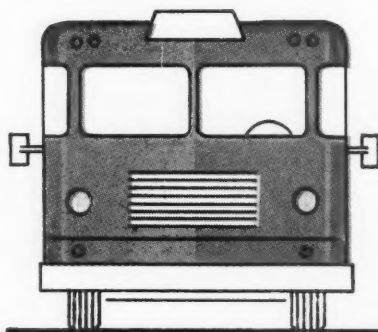
This sign identifies you as
an Auto-Lite Registered
Spark Plug Dealer.

AUTO-LITE

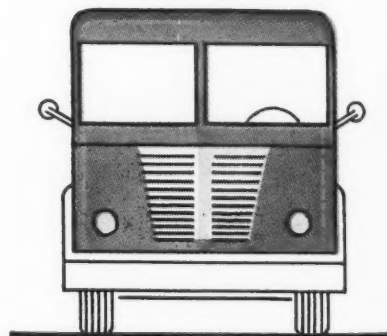
**SPARK
PLUGS**



Makes Good Brakes

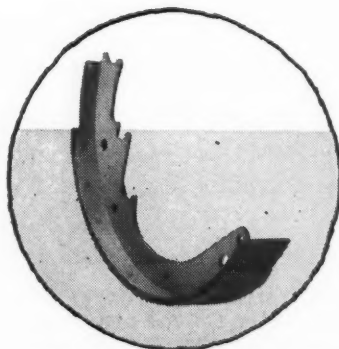


DELCO SUPER II Heavy-Duty

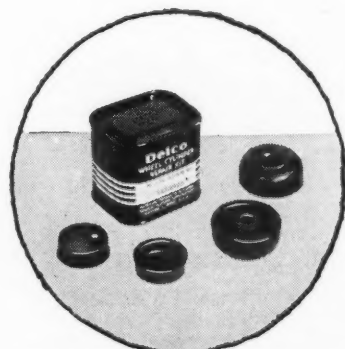


Gives Surer Stops under any

DELCO Makes
Brake Repair
Easy!



DELCO LINED BRAKE SHOES
Best for replacement because shoes and lining are made and assembled to original equipment specifications.

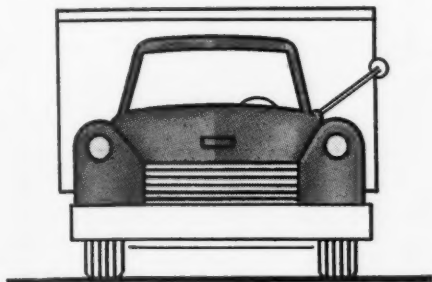


WHEEL CYLINDER REPAIR KIT
Contains all parts needed to restore a wheel cylinder to original operating condition.

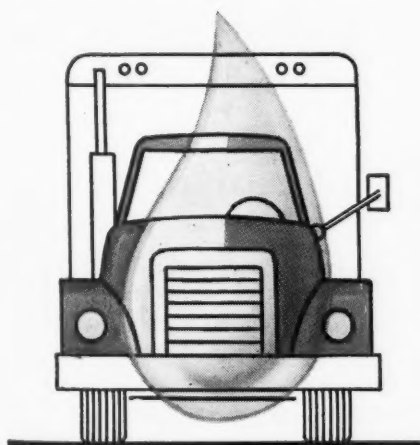
A GENERAL MOTORS PRODUCT  A UNITED MOTORS LINE

DISTRIBUTED BY WHOLESALERS EVERYWHERE

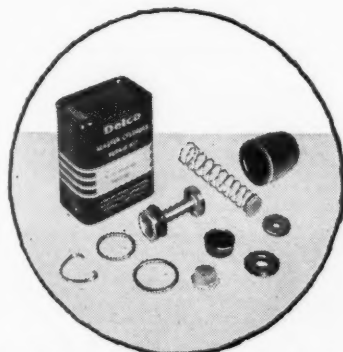
Better



Brake Fluid



Conditions



MASTER CYLINDER REPAIR KIT
Contains every part necessary to put a master cylinder back in normal operating condition.



Cars, trucks and buses stop better—stop faster—in heavy traffic or light, with Delco Super 11 heavy-duty brake fluid in the brake systems. Delco Super 11 exceeds U. S. Government specification VV-F-451a. It also exceeds SAE specification 70R1, which establishes performance standards for heavy-duty brake fluid, including operating temperature ranges, lubrication, stability, corrosive effect on metals and rubber. There's a big pre-sold market for Delco Super 11, too—it's factory-installed in many vehicles, including all General Motors cars and trucks. You can order Delco Super 11 and Delco Super 9—the moderate-duty brake fluid that exceeds SAE specification 70R2—from your United Motors distributor. Both are available in any convenient quantity, from 8-ounce cans to 54-gallon drums.



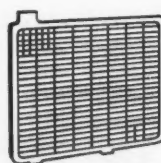
moraine products

DIVISION OF GENERAL MOTORS CORPORATION

WET OR DRY CHARGE ★ ★ ★ ★ ★ ★ ★ ★

★ ★ ★ ★ DELCO EXTRA

ARE GUARANTEED



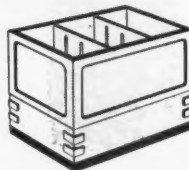
★ EXCLUSIVE NEW DELCOLOY GRID

Delco's unique grid design increases battery life as much as 100 percent by even distribution of current and a superior resistance to overcharge and corrosion.



★ SUPERIOR RUBBER SEPARATORS

Delco's microporous rubber separators offer a new high in resistance to vibration, acid attack, and peroxidation, and are designed to withstand extreme temperatures.



★ HARD RUBBER THERMO-RIGID CASES

Delco's genuine hard rubber case is completely resistant to acid absorption, heat, bulging, warping, or other distortion.

★ Listen to Lowell Thomas on CBS Radio Network—See your newspaper for time and station.

A DUTY BATTERIES D FOUR YEARS ★ ★ ★ ★

DELCO DRY CHARGE BATTERIES CAN'T GET OLD BEFORE THEY'RE SOLD!

Now you can offer your customers the extra protection of a four-year guarantee on all Delco Extra-Duty batteries—regardless of mileage in normal passenger car service. This is an important sales advantage for you.

Your customers respect Delco as a nationally advertised, nationally accepted battery backed by two of the greatest names in the automotive industry—Delco and General Motors.

That's not all, though—Delco has perfected a new dry charge battery in the Extra-Duty line that can't

get old before it's sold. Store it for any length of time, and when you need it simply add electrolyte. It requires no initial charge, so it's always ready to go—the freshest power you can buy.

Wet charge or dry charge—the Delco Extra-Duty line with its many “extra-duty” features and a new four-year guarantee, really puts you in the driver's seat when it comes to selling batteries. Remember too, that in addition to Delco's Extra-Duty line there's an Original Equipment line, a Tractor line, and an Economy line—in fact, a battery to fit every purse and purpose.



CONVENIENT NEW DELCO ELECTROLYTE PACKAGE

ZIP ★ ★ ★ ★ ★ CLIP ★ ★ ★ ★ ★ POUR



ZIP off the top of the sturdy fibreboard container, with the built-in pull string.



CLIP the corner of the acid-proof polyethylene bag that's attached permanently to the container.



POUR easily from this disposable container, which comes in two sizes to meet every battery need.

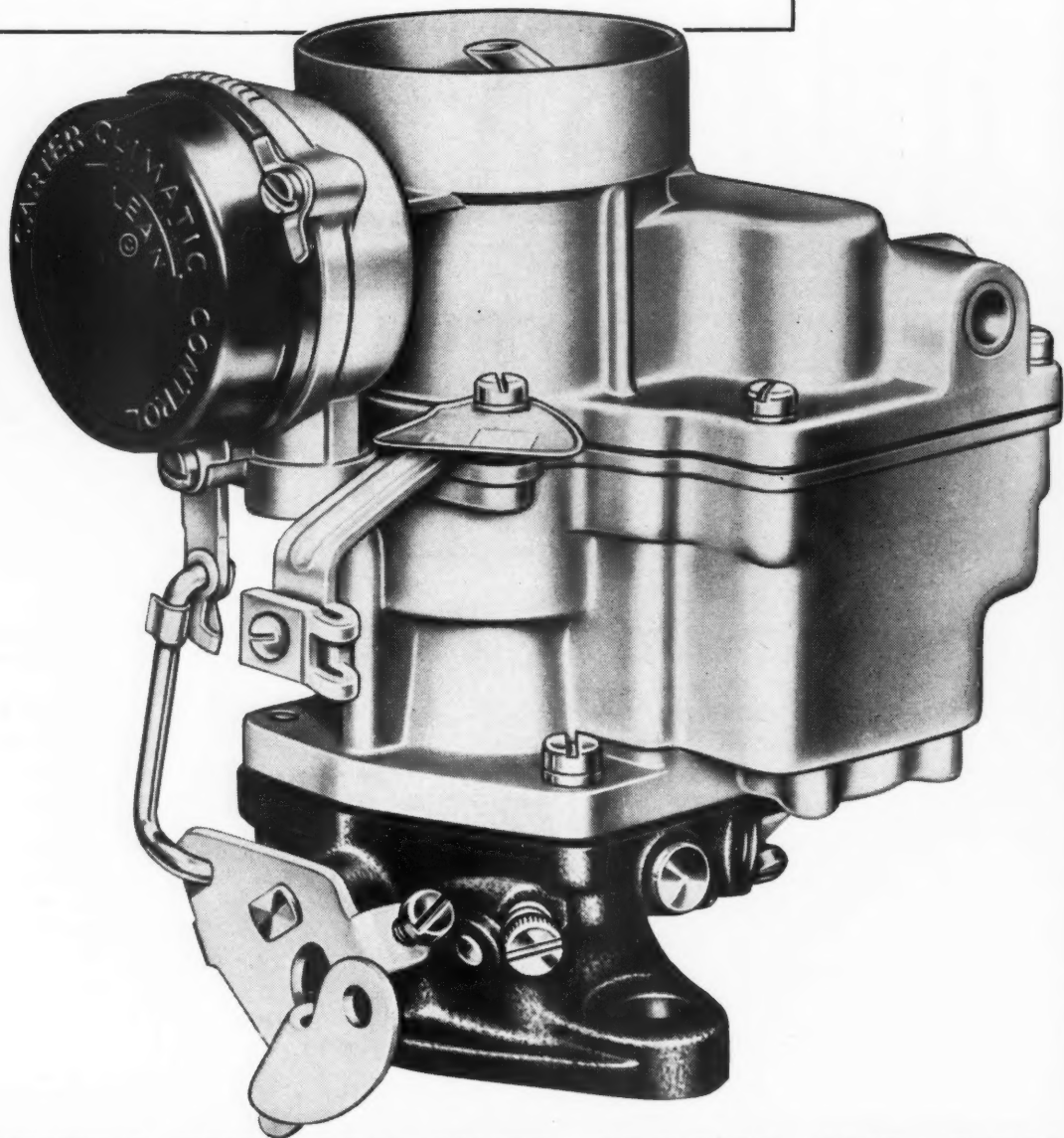


A General Motors Product



A UNITED MOTORS LINE

BIGGER opportunities...



WHEN YOU'RE THE MAN WHO STOCKS AND SELLS

CARTER



CARBURETERS

More than thirty-seven million cars on the road today are over 3 years old! Think how many of these in your community are in need of CARTER Power Center® Recarburetion.

CARTER tune-ups are easy for you to sell because CARTER products are nationally advertised... famous for their quality. For full details on this BIG profit opportunity, call your CARTER supplier.



CARTER CARBURETOR CORPORATION, St. Louis 7, Missouri
Division of ACF INDUSTRIES, INCORPORATED

What makes customers come back for more?



They'll all come back if you give 'em the best. When it's a bearing job... *just tell 'em it's TIMKEN!*

A free manicure might make customers look sharper—but it's not going to improve the sharpness of your car service. And that's what customers come in for. One sure way to give them the best service is to use nothing but the finest replacement parts. In tapered roller bearings, tell them you use *Timken*®

bearings, the one name that means quality to your customers. The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".

TIMKEN

TRADE-MARK REG. U. S. PAT. OFF.

TAPERED ROLLER BEARINGS

NOT JUST A BALL ○ NOT JUST A ROLLER □ THE TIMKEN TAPERED ROLLER □ BEARING TAKES RADIAL ○ AND THRUST → ○— LOADS OR ANY COMBINATION →





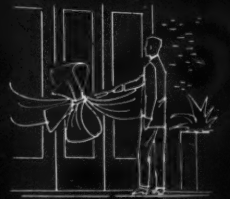
Navy Ensign during World War II. After 28 months of service, received college degree and started in business.



Started in stock room and gradually learned all phases of the business.



Became manager in 1949, started company expansion. Bought Auto Parts and Battery Service, Alexandria, La.



Built one of the South's largest and most modern jobbing buildings in downtown Shreveport.

Sam B. Mays

Manager
CHAIN BATTERY & AUTO SUPPLY CO.
SHREVEPORT, LOUISIANA

"One thing I know for sure," says Mr. Grayson, "in this business you have to learn fast. But when it comes to the lines you carry, there are a lot of time-tested facts to rely on. Take, for instance, our Auto-Lite Battery line. It has a wonderful sales leader in Auto-Lite Sta-ful, the battery that needs water only 3 times a year. That means extra profits for both us and our dealers and real value to the car owner, too. And the whole line gets the backing of strong national advertising and smart promotion. It seems to me that Auto-Lite Batteries are typical of the top products that make the whole industry grow and prosper."

AUTO-LITE

BATTERIES

Leading Jobbers

.....Rely on.....

Leading Lines





Open letter to every good mechanic:

You want to keep your present customers satisfied — with real oil economy and fine engine performance at a fair price.

You want more new customers.

You want no come-backs.

Sealed Power KromeX Ring Sets will help you reach these goals!

KromeX Ring Sets offer you the sure way to Faster Pick-up, Smoother Performance, Double Ring Life, Maximum Oil Economy and Positive Lubrication!

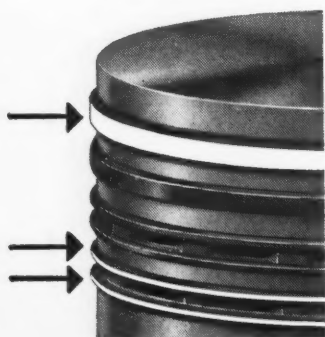
SEALED POWER CORPORATION • MUSKEGON, MICHIGAN

Sealed Power Piston Rings

BEST FOR RE-RING! BEST FOR RE-BORE!

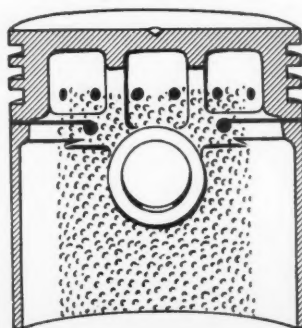


P.S. Every re-ring job deserves all three...



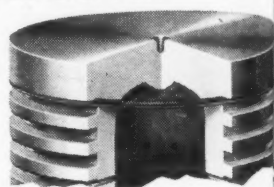
1

Use KromeX on all ring jobs. Modern engines need chrome rings to fight heat and corrosion and reduce friction.



2

Have all pistons resized on SEALED POWER Super-Size—expands skirt to original close fit—retains cam contour.



3

Install SEALED POWER GI-60 Contracting Groove Inserts—the only dependable, economic answer to top groove wear.

MOTOR AGE

Newscoop

Cadillac station wagon
Hidden gold in GAW
Push-button gear shift
Cut in freight rates
Rust research progress
Not yet for atom-cars
Highest first half

"Qualified Customers"

GENERAL MOTORS HAS BROADENED ITS "QUALIFIED CUSTOMER" definition under its wholesale parts plan to include sales by one General Motors dealer to another.

THE CHANGE NOW PUTS WHOLESALE PARTS SALES to other dealers in the GM family on the same basis as to outside customers, and makes the selling dealer eligible for the 25 per cent override. Previously, sales to other GM dealers were excluded.

Custom Station Wagon by Cadillac

CADILLAC WILL OFFER A STATION WAGON for the first time under arrangement with a specialized body builder. Hess and Eisenhardt Co. of Cincinnati will supply the station wagon bodies on the Cadillac chassis custom made to buyers' specifications.

Hidden Gold in GAW

SUPPLEMENTARY UNEMPLOYMENT COMPENSATION pay plans now a part of Ford and General Motors labor contracts and almost certain to sweep the entire automotive industry may prove helpful to automobile dealers and independent repair shops.

WORKERS COVERED BY THE PLAN will be more likely to make cash or credit commitments for new or used automobiles and needed repairs when they are assured of up to 65 per cent of weekly income for up to 26 weeks of unemployment.

Safety First on Air Conditioning Repairs

FORD HAS ISSUED A WARNING to service specialists working on air conditioning systems. It says that when servicing or repairing any air conditioned car, servicemen should never weld, use a blow torch, solder, steam clean, or bake body finishes when there is refrigerant in the system.

IT ALSO WARNS AGAINST USING EXCESSIVE HEAT on or near any part of the air cooling system while it is closed to the atmosphere whether filled with refrigerant or not. Also, the oil filler plug on Ford compressors should never be removed. Serious injury may result from gushing oil and Freon-12.

High Priced Shift

PUSH-BUTTON GEAR SELECTORS for automatic transmissions are reported coming on some of the more expensive cars on 1956 or 1957 models. The button would be located on the dash.

More Freight Cuts

ANOTHER CUT IN FREIGHT RATES on new cars at points distant from the factory may be coming. All companies last year reduced the differential in rates between factory and points of sale beyond 1000 to 1200 miles from Detroit.

REPORTS SAY A FURTHER CUT is in the making which undoubtedly would again be compensated for by increases at near-factory points. There is some belief that all rates eventually may be equalized.

Two Kinds of Rust

GENERAL MOTORS REPORTS PROGRESS on solving the salt and rust corrosion problems in automobile bodies. Its researchers have developed several promising steels using less costly alloys than nickel.

AN INTERESTING FINDING BY GM is that there are two types of rust--corrosive in damp protected areas (such as inside rocker panels), and protective which occurs on exterior surfaces.

Local Price Fixing Taboo

CAR DEALERS HAVE BEEN WARNED by the Justice Department against price packing and price fixing by local agreement. Assistant attorney general Stanley M. Barnes said that if local car dealer associations continue to agree among themselves upon any element in pricing new automobiles, his department will prosecute.

Sealed Beams—Two to Go

THE NEW IMPROVED TYPE SEALED BEAM HEADLIGHTS now are being installed on all new vehicles as original equipment. Necessary legislation legalizing the new lamps has been passed in all but two states--Georgia and Idaho.

Would Cut Traffic in Half

LATEST SOLUTION FOR TRAFFIC CONGESTION is a proposed two-wheel gyro-car. Hugo Gernsback, of New York made the suggestion to the Engineering Society of Detroit recently. Basically it would be present day car sliced in half length-wise with a fore and aft wheel and stabilized by a gyroscope.

WHILE THE PROPOSAL ADMITTEDLY SOUNDS WHIMSICAL, Gernsback is not a prophet without honor, since the vest pocket radio he suggested in 1933 sounded preposterous at that time but today is in use.

Atom Cars Not in Sight

DOPESTERS WHO PREDICT ATOMIC POWERED AUTOMOBILES in the next few years are more optimistic than well-informed. While all companies are actively studying nuclear power there is little indication yet that it is within sight as a practical reality.

Sell on Volume Basis

ED PAYTON, LONG TIME MANAGEMENT CONSULTANT to car dealers, says Ford, General Motors, and other companies are not "spending billions of dollars for facilities to cut production" of cars and trucks.

HE TOLD MICHIGAN DEALERS AT THEIR ANNUAL CONVENTION in June to forget talk about reducing production, concentrate on volume operations. "If you don't sell on volume basis, rock 'em--sock 'em boys will," he said.

Whirlaway Is Back

GENERAL MOTORS IS PUSHING DEVELOPMENT of its new Hydramatic transmission and will have it available on at least some of its 1956 models. The new unit probably will be called the "Whirlaway," a name used for Hydramatic by Oldsmobile a few years ago but dropped after a short time.

BASIC CHANGE IN THE UNIT is a new type coupling which is said to smooth out the "bumps" between gear shifts. It will retain the original four forward speeds, however.

Record Year Possible

CAR, TRUCK PRODUCTION MAY DROP OFF 25 PER CENT or so during the third quarter but should pick up again after that and the outlook now is for very close to a 7.5 million car year in 1955.

THE FIRST HALF WOUND UP WITH ABOUT 4.2 MILLION, the highest first half in history. The current quarter should see about 1.5 million cars and with the new model push in the Fall, production could hit 1.8 million for a grand total of 7.5 million for the year, an all-time record.



Washington Wire.....by Ray M. Stroupe

Sales! Sales! Sales!

SALES ACTIVITY IN MOST RETAIL LINES stayed at high levels in May. Early reports to the U. S. Commerce Dept. gave total sales for the month a value of more than \$15.3 billion.

THIS VOLUME INCLUDED SALES of \$3.4 billion by retailers in the automotive lines. Service stations did over \$1 billion worth of business, improving on their totals for April and for May, 1954.

IRS Decides Repairman Tax Status

EMPLOYMENT TAX STATUS OF A SERVICE SPECIALIST who works full-time in an automobile sales company for a percentage of weekly receipts is decided by the Internal Revenue Service. IRS says he is an employee if he has no investment in the repair shop and is told what amounts to charge.

HIS NAME NEED NOT APPEAR on the payroll for him to be an actual employee. Control over his services assures the company a reasonable return.

Bohn Charges Dropped

CHARGES OF UNFAIR PRICING against Bohn Aluminum & Brass Corp., Holland, Mich., are dismissed by Federal Trade Commission. The firm was accused late in 1949 of selling automobile replacement parts at higher prices to small businessmen than to large buyers.

THIS NEW FTC ACTION IS IN LINE with an examiner's decision of last April. Bohn disposed of its parts business in 1953, and the examiner found that the firm did not intend to re-enter the field.

Congress Rallies Behind Sales Training

STRONGER GOVERNMENT SUPPORT is shaping up for the program in which young people are taught how to sell. One Capitol Hill proposal would permit more than \$2 million to be invested in this training in the next 12 months.

CONGRESS PLACED A CEILING of \$900,000 on the amount that could be spent in the fiscal year just ended. That lid will be removed if backers of more generous funds get their way.

Gas and Oil Report

FIRST DRAFT OF A REPORT ON GASOLINE AND OIL marketing was finished late in June by a House small business subcommittee. Contents were to get close attention from the group before being made public.

ONE POSSIBLE RESULT IS A DECISION to hold no hearings on car parts sales methods. The subcommittee could draft a general business bill to cover sales of a variety of products.

NADA vs. Used Car Dealers

A HARD FIGHT MAY DEVELOP if Congress opens hearings on the new Williams antibootlegging bill. The National Automobile Dealers Association and the used car dealers will take opposite sides.

NADA FORESEES A GOOD CHANCE of getting the House to approve the measure. If passed, it will go to the Monroney subcommittee of the Senate, where details on bootlegging complaints now are being compiled.

Merger Effects

CHAIRMAN HOWREY OF THE FEDERAL TRADE COMMISSION sees independent car producers' mergers bringing about more sales competition. That doesn't mean he's plugging for new mergers soon, however.

IN FACT, GOVERNMENT ANTITRUST LAWYERS have put a hidden ban on further auto industry combinations for the next two years. They figure it may take that long to find what effect last year's mergers are having on marketing.

Produce Like Sin

PRESIDENT GEORGE ROMNEY OF AMERICAN MOTORS has told Congress automobiles have something in common with sin and ladies' hats. When first seen, he said, they're deplored, when seen more they're tolerated, and later they're embraced.

HE MADE THIS COMMENT while sizing up the way consumer preference for cars is formed. Major producers, he contended, can create preference by the sheer number of cars they build.

Wages Up—Prices Up

NEW CLIMB IN COSTS AND PRICES may be a little overdue, some federal officials think. Labor expenses are rising, partly because of guaranteed annual wage demands. As wages rise, earners look for more consumer goods to buy.

PRICE HIKES FOR SOME MATERIALS used in these goods appear to be on the way. Even a slight increase in prices can mean higher costs of finished items sold by retailers.

Report to Our Readers



Calling All Service Specialists

SOME cool summer evening soon, relax with a tall glass of something-or-other, and try to figure out where you are going in this automotive "after market." You are the Key Man of the automotive service industry.

You judge the need for replacement parts. You install the right part in the right place at the right time. And that is a service to the public for which you can justly profit.

Your share in the replacement parts business is derived two ways:

1. Emergency service: the dead battery, the flat tire, the rotted, deadly muffler, and many another replacement that should have been attended to before the emergency happened.

2. Preventive maintenance: Recommending and installing replacements to improve the performance, comfort, safety and appearance of your customers' cars. That they appreciate.

Doing these things makes you a Service Specialist. That's something to be proud of. The man who does the repair work, the replacement work, is not only the "guardian angel" of the troubled motorist, he's the "unsung hero" of the automotive industry.

We suggest a change. Since you are rendering an important service to the public—identify yourself as a Service Specialist. Keep abreast of new developments as any other specialist does. Build public confidence in your business by courtesy, promptness and fair prices. Build a clientele like any other professional man.

Summer Service Peak

NOT enough has been said about the concentrated summer peak in the replacement parts business.

We have come to anticipate Spring Tune-up and Prepare for Winter Driving periods. Experts have pointed out that another seasonal peak has entered the service market . . . the Summer Cycle in Service.

Hot summers bring a heat wave of car per-

formance difficulties that lead to opportunities for customer satisfaction and better profits.

Summertime brings more opportunities for Service Specialists to help the stranded. Picture the stranger in your town with his car broken down. If ever he needed a helping hand, he needs it now. You can refreshen and encourage the downhearted vacationer by assuring him that he has come to the right place for help. Courteous treatment, fair prices and good work are the basic requirements for a top Service Specialist. Perhaps you might hang Jack London's verse some place where you can read it regularly:

"Now I get me up to work

I pray the Lord I may not shirk.

If I should die before the night

I pray the Lord my work's all right."

Replacement Parts Package

MORE than sixty per cent of all cars on the road are four years of age or older. Forty-two per cent are from four to nine years of age and eighteen and a half per cent are nine or more years old.

Currently N.A.D.A. is surveying its membership for ideas and plans about scrapping old cars. Until some effective means is found (such as upgrading old car owners into better used cars—or new ones) these genarians will need the tender loving care of a replacement parts Service Specialist, like you. Thus it is that your editors have taken a special look at the whole replacement parts package in this issue. And, just to keep matters up to date, we also present all the latest specifications on the 1955 cars.

Faithfully yours,

Frank P. Tighe

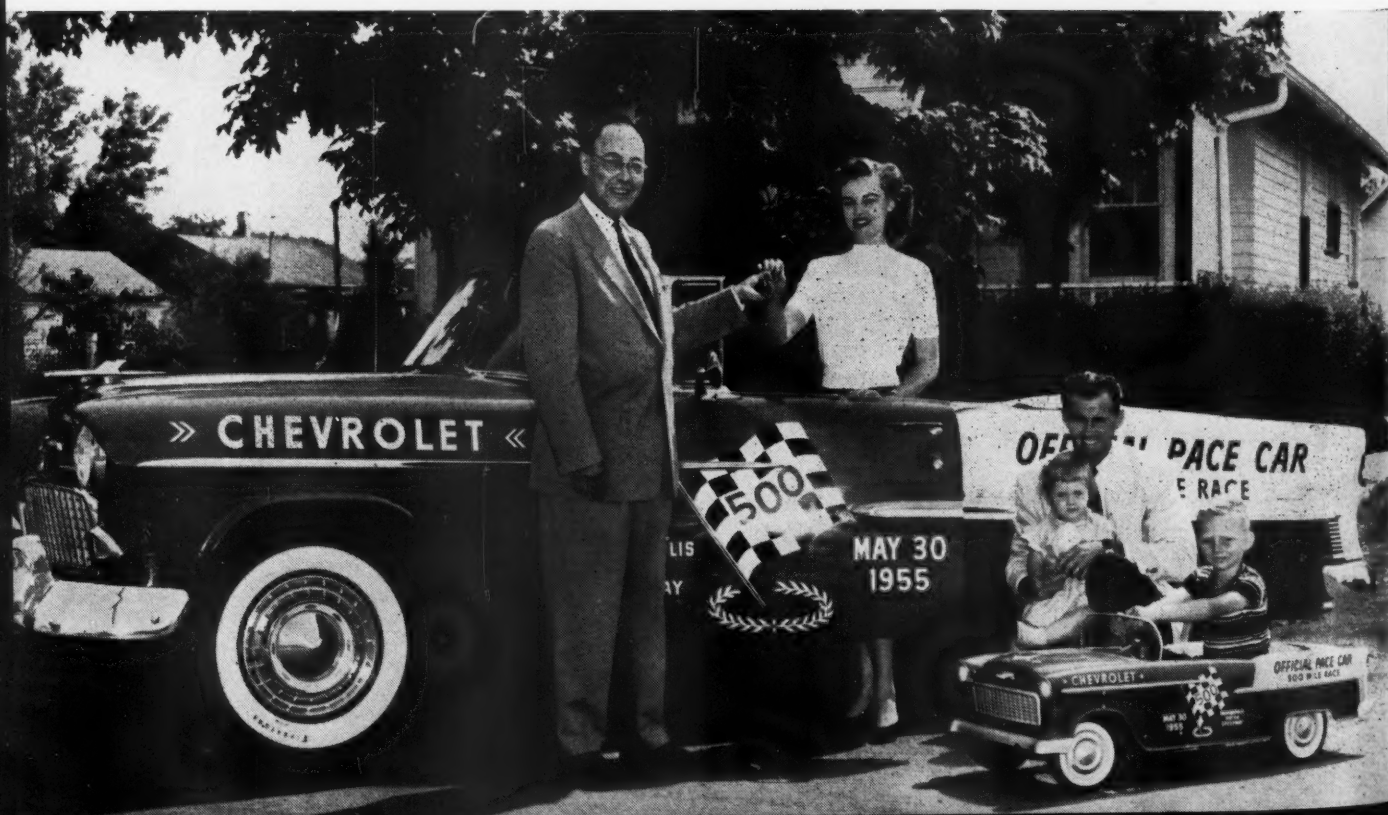
EDITOR



NewsScene

"UP IN THE AIR" was the driver of this truck when he tried to climb a hill in Omaha, Nebraska. The truck was carrying a load of plasterboard sections. As the driver approached the crest of the grade, the load slipped and the cab began its upward rise.

BOB SWEIKERT, INDIANAPOLIS "500" winner this year, takes possession in company with his family of the Chevrolet Pacemaker as one of the prizes. Mrs. Sweikert is accepting the keys to the convertible from Chevrolet City Manager R. L. Kreis (standing) at Indianapolis. Bob, with his daughter Johnene and son Stephen, is looking over the Chevrolet Kiddie Convertible which is patterned after the Pace auto.





READY TO GO DOWN WITH HIS "SHIP"—or at least for one night—is this 400 pound black bear. The chained bear was riding in a light panel truck when the truck struck a safety island in Chicago. Police could not immediately locate the driver nor persuade passenger 'Mr. Bruin' to enter an Animal Shelter cage for the night. Hence 'Mr. Bruin' was left chained in the truck which was locked up in a garage for that night.



NEW USE FOR SHOCK ABSORBER FRAME was uncovered recently when William Kurman of Elk Terrace (near Salem, N. J.) found a robin's nest firmly ensconced in this position when he stopped to change a tire. Nest contained three unbroken eggs. Kurman estimates that his car had traveled at least several hundred miles before the nest was noticed.



PROUD OF HIS home-made racer is Larry Andell of Winchester, Illinois. Larry has picked up quite a few blue ribbons in local "Micro Mid-get" racing. This amateur racing for boys age eight to sixteen has become quite popular around Winchester. The average racing car weighs about 300 pounds. Competition takes place on a one-tenth mile dirt track. Larry's mount is powered by a 6.6 hp engine made by Kohler Company, Kohler, Wisconsin.

Win This Original Painting

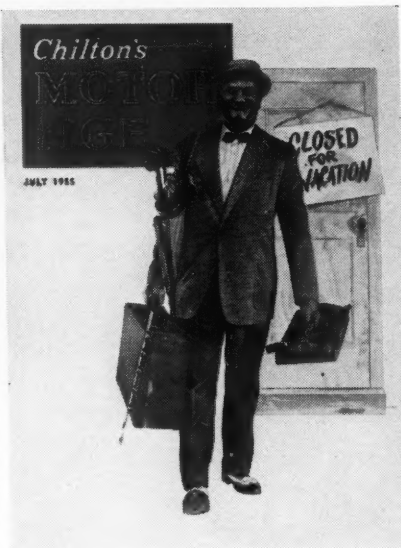
With this, the July issue of **MOTOR AGE**, the third in a series of monthly contests continues. The award this month is the artist's original painting of the July cover (reproduced here).

The contest will run in succeeding months throughout 1955. The winner of the May contest and the prize-winning letter appear on the opposite page.

The July contest is opened to all subscribers of **MOTOR AGE** (excepting employees of the Chilton Company, publishers of this magazine). There is no entry fee whatsoever.

To enter this month's contest, simply write a letter on your business stationery telling the editors of **MOTOR AGE**—"What I liked best about this, the July issue of **MOTOR AGE**." Sign your name and title.

All letters received become the property of the Chilton Company and none can be returned. The deadline for the



July contest is Monday, August 15, 1955.

The winner will be announced in the September issue of **MOTOR AGE** and the winning letter published therein.

The full color painting is a large illustration measuring 16½ inches x 22 inches. It will be delivered to the writer of the winning letter suitably framed.

Packard Initiates Car Color Salons

The first of a series of "Color Salons" to be conducted in key cities throughout the country by Packard division, Studebaker-Packard Corporation, was opened in June at the company's branch headquarters in Philadelphia.

Frank A. Stone, Packard line sales manager, said one of the most important and complex marketing assignments now being performed by his company is one concerned with ascertaining customers' color preference in the luxury car field.

Citing an industry trend toward a "riot" of colors which is gaining further momentum, Stone said holding of the color salons in key cities is for the purpose of broadening Packard's activity in this field of consumer research.

Inspection Law Film Available

In the belief that the nation's highway death toll can be sharply reduced if motorists will maintain their automobiles in safe mechanical condition, Thompson Products, Inc., of Cleveland, Ohio, is making available for public showing a sound-color motion picture detailing operation of Pennsylvania's pioneer motor vehicle inspection law.

Already viewed by an estimated 150,000 persons throughout the country, the film may be shown without cost by civic or other organizations interested in promoting traffic safety on the highways. More than 175 prints have been obtained by private groups for their own use.

The 23-minute film which carries no advertising or commercial appeal, was produced by Russ G. Riley, service sales consultant for Thompson Products.

Willys Offering New Power Brake

Power brakes are now available for all Willys utility vehicles and passenger cars produced since 1950, it was announced recently by A. G. Lohr, merchandising manager of the Willys Motors parts and accessories division.

Designed for all vehicles in the Willys line except the Universal Jeep and military vehicles, the hydraulic power units are offered only as a dealer installed accessory. They are not available as factory installed equipment.

Conversion kits utilize the existing brake pedal and master cyl.



CAR SAFETY belt demonstrated by Robert Mattox of Liberty Mutual Insurance Co. was designed to meet standard established by Cornell Aeronautical Laboratory in automotive crash research program sponsored by Liberty. Belt is made by Hickok Mfg.

Most Competitive Period for Autos

Declaring "there is no such thing as an entrenched and unassailable position in the automobile business," Chrysler Corporation presi-



dent L. L. Colbert (photo) recently told a Senate subcommittee that the automobile industry now is in the most competitive period it has ever known.

As evidence of this vigorous competition, he cited the comparative prices of the original 1924 Chrysler car and a 1955 Chrysler four-door sedan. Allowing for greatly increased taxes and the lower value of the dollar, Colbert said, automobiles sell for less today than when Chrysler Corporation entered the business.

Pacific Auto Show Officers Selected

Directors of the 1956 Pacific Automotive Show elected new officers for the coming year at a recent meeting. Louis J. Cresta was chosen president; R. H. Gerlach, 1st vice pres.; P. T. Johnson, 2nd vice pres.; J. K. Wilkinson, secretary; and Ira Lambert, treasurer.

Next year's Pacific Automotive Show will be held at the Civic Auditorium in San Francisco, February 23-26.

May Contest Winner Announced

The results of the May contest are in. We have a winner! He is:

**Russell Bontjes, Co-Owner
Stillman Standard Service
Stillman Valley, Illinois**

The award of the artist's original painting of the May cover of *MOTOR AGE* has been presented to Mr. Bontjes. The painting has been mounted in a handsome frame that measures approximately 2 x 3 feet.

A gratifying number of entries was received in the May contest and the Board of Judges have reported "we had the most difficult chore of deciding. All the letters were interesting and showed a great deal of care and consideration had gone into their composition."

Judges for the contest which closed June 25 (note that the closing date for the July contest is now the 15th of August) were George S. Lamson, vice president, Replacement Div., Thermoid Co.; S. R. Robinson, advertising manager, Gray Rock Div. of Raybestos-Manhattan (Mr. Robinson is also newly elected president of the Automotive Advertisers Council); and Martin E. Goldman, partner of Aitken-Kynett Co. Advertising Firm.

The prize-winning letter read as follows:

"Dear Sirs—In regards to your contest in May issue of *MOTOR AGE*, to pick out the best article in my opinion is almost an impossibility. I read every issue from cover to cover and say it is the best magazine of its kind.

"The article that struck me as outstanding was Mr. Henry Ford's article on page 42, titled "Don't Be Scared By Prosper-

ity." I think a little thought on this matter of prosperity and potentials would be beneficial to every business man in the country regardless of what type or form of business he may be in.

"If we could achieve the last section of this article headed "No Sacred Cows," or might I say all try for this goal. It would be as near Utopia as any nation could possibly get.

"This cover interests me immensely as I have rehearsed this scene many, many times.

"I am the Fire Chief located five miles from my place of business so it is normal for me to rush off in just such a manner.

"Should I win this painting it will be proudly hung alongside my Chilton Flat Rate and Service Manual plaque, for everyone to see.

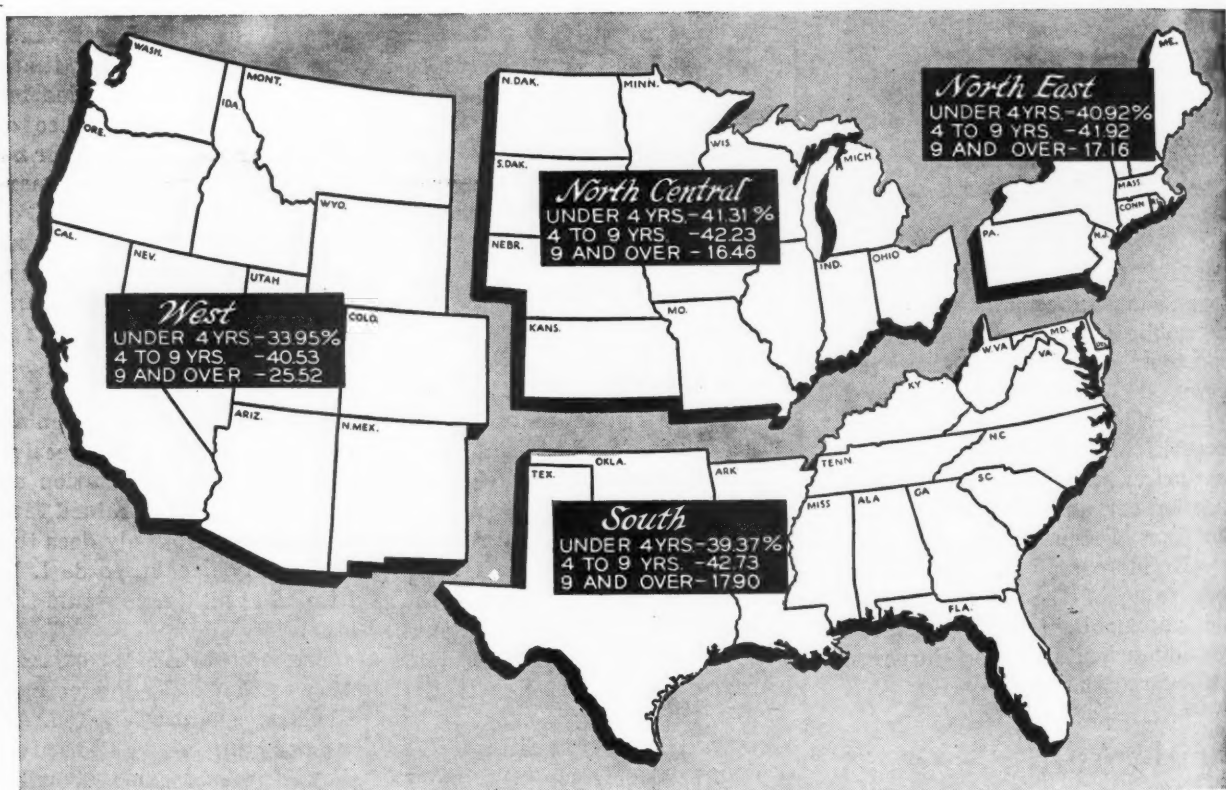
"I feel it is just as much of a community benefit to run an efficient, modern, progressive garage and service station as it is to have a well-trained Fire Department. Not only does the community benefit, so do I. If I failed at either, so would the other."

The editors of *MOTOR AGE* wish to thank the judges and all those who participated. As already noted, the entries showed considerable thought and care and not the least of the benefits were ideas and samplings of what subscribers to *MOTOR AGE* like to see in their magazine.

Details of the new contest for the July cover's original painting appear on the opposite page. Note the new closing date of the 15th of August for the July contest. So don't delay, enter now!

Where Replacement Parts

Map points up distribution of cars in use by age groups — best repair market



OF ALL the passenger cars in use throughout the country, 39.46 per cent of them are less than four years of age. Forty-two per cent are from four to nine years old and 18.54 per cent are nine or more years old.

This division of registrations by age groups is made in order to assist car dealers, independent service specialists, automotive jobbers, distributors and manufacturers of automotive replace-

ment parts and accessories in determining the potential of their markets. In general, cars under four years of age require only minor repairs, but approximately half of them might require body and fender work, tune-ups, spark plugs, points, fan belts, oil filter cartridges, batteries, mufflers, and a host of other replacement items.

The four-to-nine year olds are the cars which are most apt to be in need of major repairs. It

When Overhauling Engines

Don't Sell Your



By using a precision pin-fitting machine, connecting rod's piston pin hole is honed.

Operator is shown aligning the connecting rod and the piston assembly with help of a special fixture.



Mechanical know-how plus quality parts is

OVER 32 million cars, four years of age or more, are roaming the streets of the United States today. Within this vast group we can readily see the volume of sales possibilities for engine work. Any car built in 1951 or earlier is due for some type of engine overhaul.

When considering the potential in terms of dollars and cents consider the amount available in labor charges alone. It comes to a very impressive chunk of business. But don't stop there. There's more money to be made when you sell

Another important step is checking the land clearance with aid of a steel scale and a feeler gauge.



Parts Short

a surefire team to please customers

REPLACEMENT PARTS CHECK LIST

- | | |
|--|--|
| <input type="checkbox"/> pistons | <input type="checkbox"/> distributor parts |
| <input type="checkbox"/> piston rings | <input type="checkbox"/> fuel pump |
| <input type="checkbox"/> piston pins | <input type="checkbox"/> spark plugs |
| <input type="checkbox"/> main bearings | <input type="checkbox"/> valves |
| <input type="checkbox"/> rod bearings | <input type="checkbox"/> valve springs |
| <input type="checkbox"/> oil seals | <input type="checkbox"/> valve guides |
| <input type="checkbox"/> oil pump gears | <input type="checkbox"/> valve retainers |
| <input type="checkbox"/> oil filter | <input type="checkbox"/> valve lifters |
| <input type="checkbox"/> flexible lines | <input type="checkbox"/> gas filters |
| <input type="checkbox"/> timing chain | <input type="checkbox"/> gaskets |
| <input type="checkbox"/> timing gears | <input type="checkbox"/> fan belt |
| <input type="checkbox"/> water pump and repair kit | <input type="checkbox"/> carburetor and repair kit |

more parts per job.

A little extra inspection by the service specialist will usually turn up another worn part that needs replacement. A little better sales job will sell that and many other parts. Profit in the automotive service business boils down to knowhow and good salesmanship. Hints are offered here to help in the knowhow department.

When estimating and trouble shooting engines for noises and oil consumption, remember it's the little things that count.

Before taking an engine apart, try to deter-

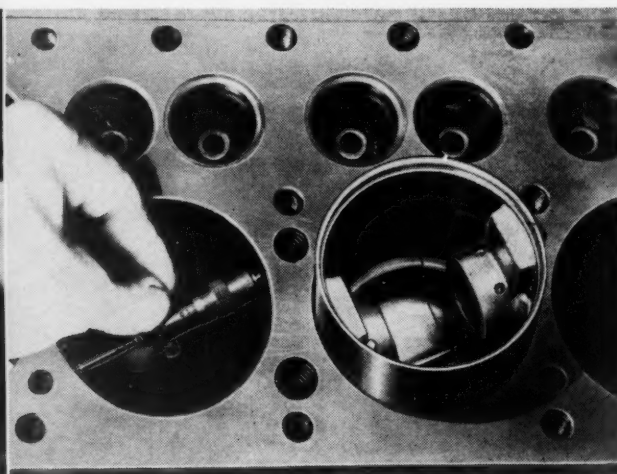
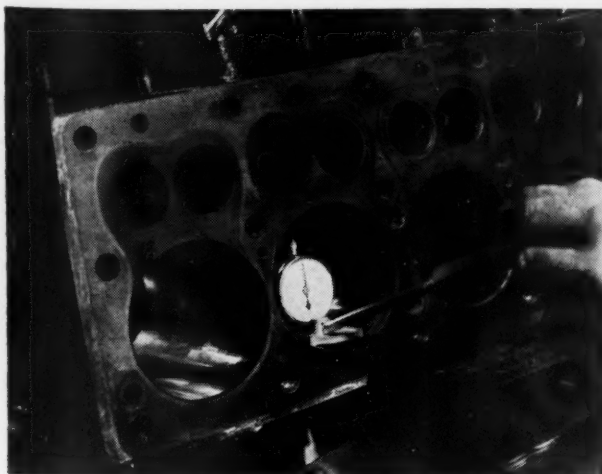
mine where the oil is disappearing. There are only two ways in which an abnormal amount of oil can leave the crankcase of an engine: 1) through external leaks and 2) by going through into the combustion chambers.

External leakage may result from poor gaskets or poor oil seals. Sometimes crankcase pressure will build up due to blowby or a clogged crankcase ventilating system. This causes the oil to be forced past the front or rear main bearing, the fuel pump, or the distributor shaft.

(Continued on page 136)

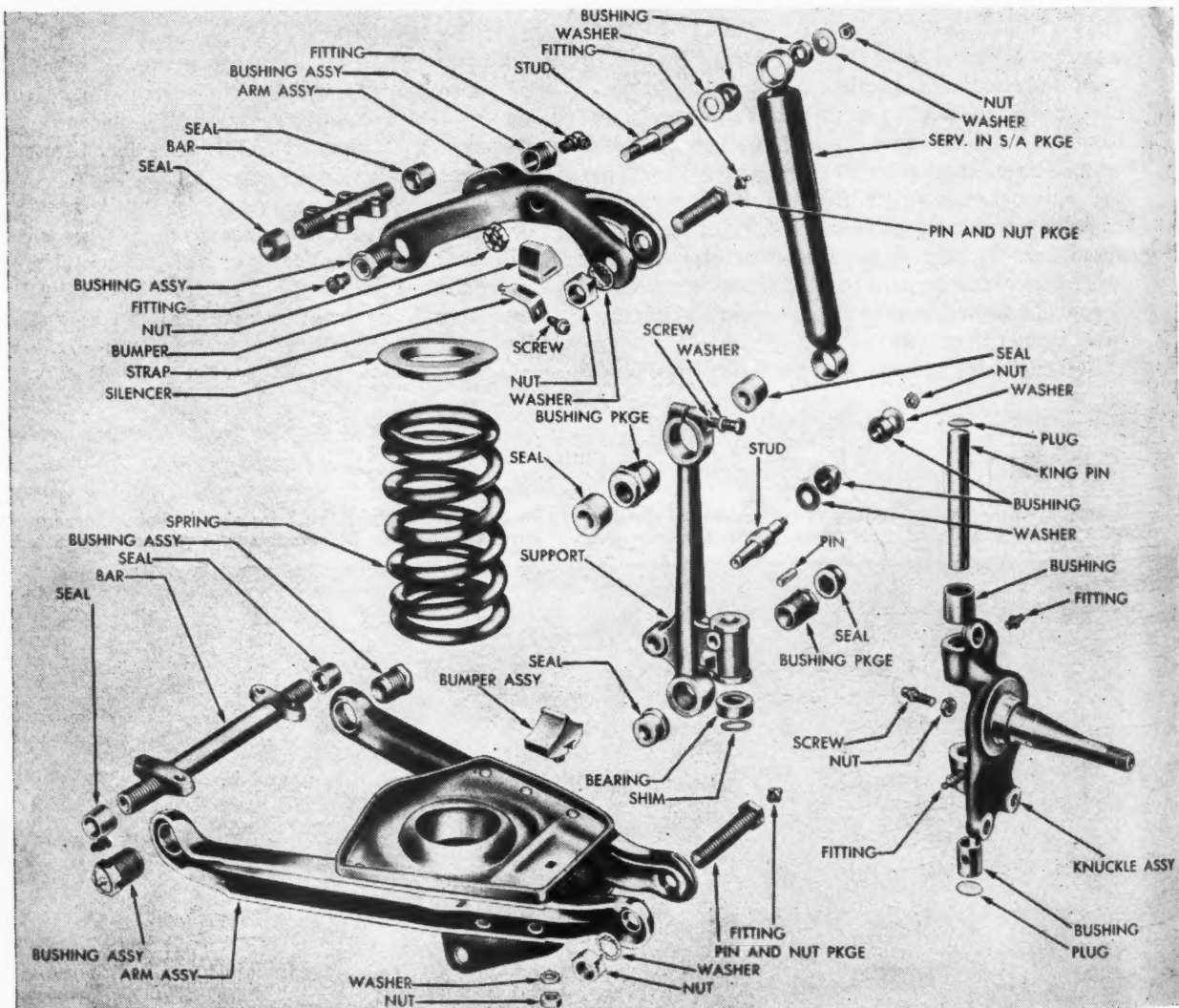
Note dial indicator in photo. It is used for checking cylinder taper and wear when piston is removed.

In the photograph, the bore size is being measured by a micrometer before the new pistons are fitted.



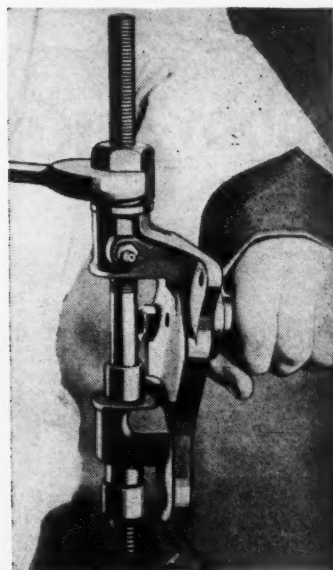
Don't Overlook F

Arrows in exploded view point to suspension parts for Dodge, Chrysler, Plymouth, and DeSoto cars.



Replacement Parts

and let him see the need for replacing worn parts there



Special tool is used in removing and replacing kingpin bushings.

REPLACEMENT PARTS CHECK LIST

- ☐ coil springs
- ☐ upper support
- ☐ lower support
- ☐ support pins, upper & lower
- ☐ shock absorbers
- ☐ king pins
- ☐ bushings
- ☐ wheel bearings
- ☐ tie rod ends
- ☐ sway bars
- ☐ front wheel oil seals
- ☐ intermediate steer. arm bushings
- ☐ wheel hub and drum
- ☐ knuckle support



"A" frame mounted in vise for replacement of inner shaft. Note special gage to insure proper spacing.

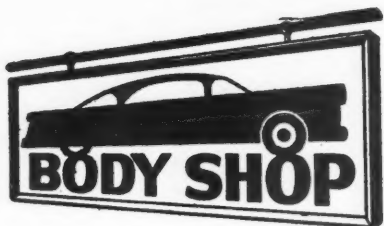
THE service potential for front end work seems almost unlimited when you take into consideration two facts. One is that there are approximately 41 million automobiles on the road today and it is safe to assume that many of them will need front end adjustments and repairs during their lifetime. This is partly due to the second fact which is that almost half the states require state inspection and more are passing laws along that line every year.

Mechanics find that front end work is profit-

able and easy since the customer knows that his car must be in safe condition. On newer cars, with low mileage, a check-up usually results in making a few minor adjustments on toe-in and camber. On older cars, with high mileage, the front end should be given a thorough check.

Raise the front end with a jack and place horses under each "A" frame at the outer ends, lower jack leaving weight of car on the coil springs. Grasp the tire at the top and bottom

(Continued on page 140)



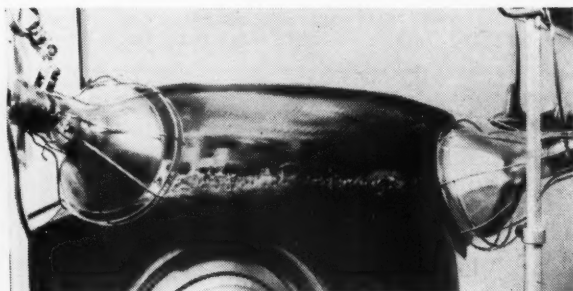
Patching Metal

The body shop will benefit from a fast, money-making method of repairing metal with resin and fiber glass

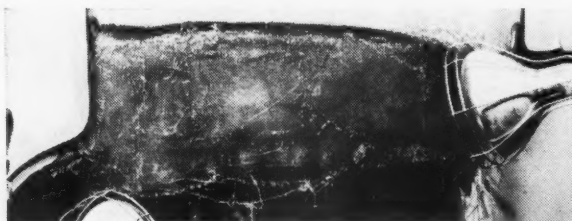
by R. C. Rittenhouse, Associate Editor



Indentation of the repair area is essential to allow for filling and bridging of holes and the like.



Dry the area with heat lamps before patching because moisture affects the curing of resin mixes.

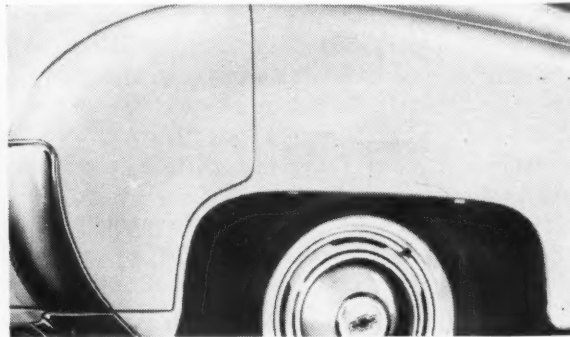
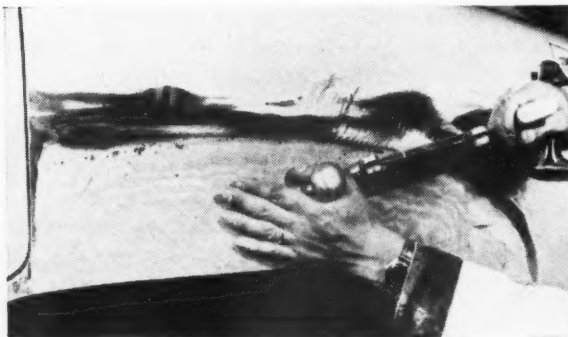


After the lay-up is made place lamps no less than ten inches from the work to help speed the curing.



When the patch reaches the gel stage trim off excess material. Use the fingernail test to check for cure.

Work from the outside to the center with the body file to help eliminate flat spots in the repair area.



The refinishing operation for this repair was done in same manner as that for a standard metal repair.

Panels with Fiber Glass

THE cost and time elements of repairing torn and rusted out sections of sheet metal have been cut to the bone by the latest and probably one of the greatest body repair developments in recent years—the epoxy resin repair method.

A typical job may be accomplished up to the refinishing operation in a little more than an hour, while time and labor savings on this work may reach 50 to 75 per cent. The brightest note is that the initial cost is surprisingly low because no special equipment must be bought. To set itself up in this repair business a shop needs only to purchase a resin repair kit.

The kit will include: 1. Epoxy Resin and Hardener—These materials are the backbone of this method. 2. Fiber Glass Cloth—A strong material, it has excellent wetting ability with epoxy resins. 3. Chopped Fiber Glass Roving—Gives strength to a resin repair where cloth is not used. 4. Filler—Thickens the resin liquid to a putty consistency. 5. Table Spoon, Unwaxed Paper Cups and Wooden Spoons.

Preparing the Surface

Preparation of the area to be repaired is the first step in resin patching regardless of the type of repair. Remove all paint and rust scale, if possible. Apply a generous amount of hydrocarbon type solvent over the entire working area with a clean rag. Then wipe all surfaces dry. Above all, make sure the entire damaged area is clean. A No. 16 open coat sanding disc serves the purpose for preparing an area up to 8 inches beyond the damage. The sanding insures a good bond between metal and resin.

An essential part of surface preparation is the indentation of the repair areas to permit filling and bridging of holes and so on. In this operation it is important to provide a maximum surface for adhesion. Denting the area in a long gradual slope rather than in a short, sharp form will produce the best results.

Sometimes bonding may not be complete even after denting. In this case, holes should be punched in the surrounding metal to create an



An instructor at a General Motors Training center demonstrates the lay-up technique on a turret top.

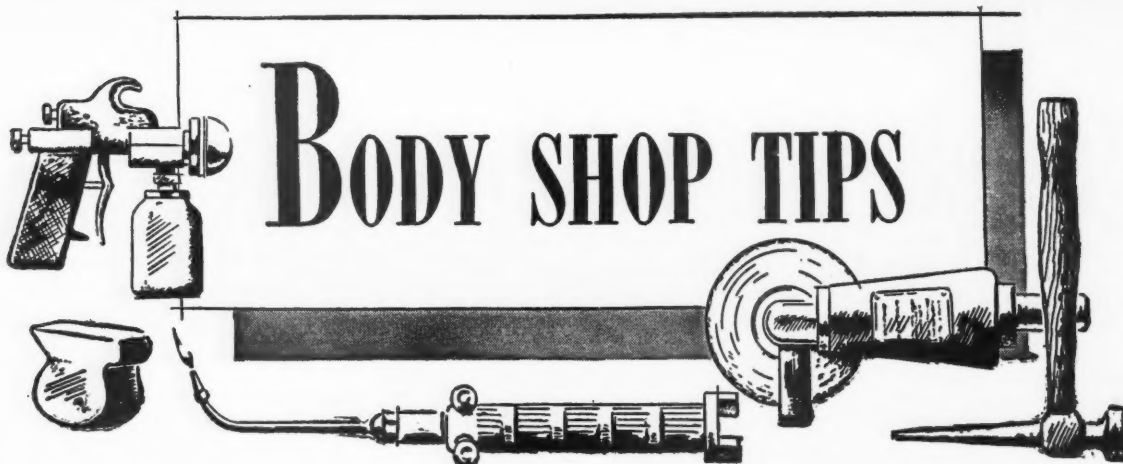
anchoring effect when the resin penetrates them.

After a good, clean bonding surface has been readied it must be dried *thoroughly*. This is important because excessive moisture can retard the curing process of resins to a degree where the repair could not be made.

Drying lamps should be placed about 10 inches from the work for roughly ten minutes. Move the lamps occasionally to avoid hot spots.

If fiberglass cloth is to be used, measure the area to be patched and cut patches so they will

(Continued on page 100)



BODY SHOP TIPS

are worth

\$7.50

If you've developed an idea that has helped you to do body and fender work or painting better or faster, it may be worth money. Jot down the idea and, if necessary, make a rough sketch. Sometimes a snapshot will help. Just make the description of your BODY SHOP TIP clear, and if it is used, you'll receive a check for \$7.50.

Device to Attach Trunk Lock Spring

Here is a method to connect the spring that closes and retains the lock cylinder covers on the trunk of late model Ford cars. Take a piece of $\frac{1}{8}$ welding rod, 6 inches long and saw a slot in the end with a hacksaw. Bend to provide leverage. Then you can reach from the under side of the deck lid and hook the spring without removing the lock from the trunk. *Kenneth J. Rubey, Erickson Motor Sales, Inc., Stevens Point, Wis.*

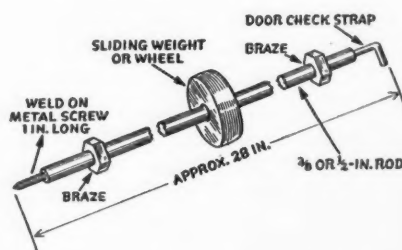
Hole in Fender Flange Helps in Grille Removal

We found a quick way to remove the grille on 1949 to 1952 model Fords. The bolt through the fender and grille in back of the baffle is hard to reach. We find that by cut-

ting a $\frac{7}{8}$ inch bolt in the fender flange, we can then insert a $\frac{1}{2}$ inch box wrench to hold the bolt steady. After the grille is in place, install a rubber grommet. *D. Duncan, Arndt & Hall Garage, 600 E. Pearl St., Jackson, Mich.*

Saves Time and Money With 'Slapper' Tool

We have made a "slapper" tool to remove hard to reach dents in quarter panels that ordinarily would have to be leaded. To make the tool we used a gear shift rod for the shaft, a 2 or 3 lb wheel for a weight and an automobile door check strap that has been bent to an L shape. We welded a one inch metal screw to one end of the shaft and a door check strap to the other. After sliding the weight onto the



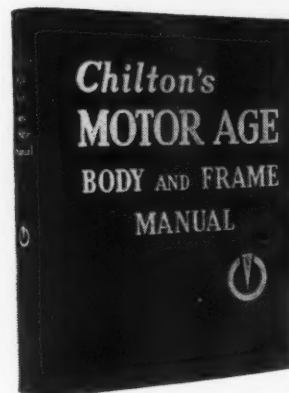
shaft we brazed a stop nut a few inches from each end of the shaft. To use it, we punch a hole in the dent with an ice pick. Then turn the screw end of the tool into the hole and slap the weight hard against the stop nut removing the dent. The strap end can be used in the same manner to remove dents in fenders that have been jammed into the front door. *Joseph Autry, Ford's Body Shop, Pampa, Texas.*

Method to Repair Broken Door Handles

I have an easy method to repair inside door handles that have fallen off General Motors cars. I grind the horseshoe retaining clip flat on one side at the points of contact and install it with the flat side facing the inside of the car. *Roy Eger, R.R. #14 Getz Rd., Fort Wayne, Ind.*

Simple Trick to Prolong Life of Grinding Discs

Our grinding discs last longer when grinding solder and paint. Usually the disc fills up and you need a new one. I have saved a lot of disc's by removing them, holding them between the thumb and forefinger and slapping them hard against a steel bench. It is very effective and really cleans them. *John L. Larson, Johnson Pontiac, 201 West Alice, Darlington, Wis.*



Other valuable information of the type presented each month in The BODY SHOP is available in Chilton's Motor Age Body and Frame Manual.



"A strike!" whooped Jamison. "No," said Pop intent on the Cadillac's problem, "... couldn't be that."

Pop Gets Off the Hook

"The customer is always right" although a planned sun-up expedition wasn't quite Pop's idea of how to keep up customer morale

IT was a beautiful bright spring day—the kind you dream about way back in December—and two men were busy taking advantage of it. Pop O'Neill was concentrating on the business at hand and his companion, Jamison Jenkins, was looking over the morning's work. No, they weren't under a car. They were fishing up on Dugan's lake.

It was a coincidence that brought these two men together today in a flat-bottomed rowboat—coincidence and a 1953 Cadillac. Jamison had started fishing early in the morning, but his car had quit on him just a mile from the lake. He had called Pop for help; then gone on to the boat-house on foot. And Pop, finding nothing wrong with it in a cursory check, had stopped by to get the case history. Now he should have known better than to interrupt a fisherman by inquiring about troubles in a Cadillac.

"What's the trouble?" Pop asked, when Jamison insisted that he climb in the boat with him and take his spare rod.

"Too much rain, I guess," Jamison replied, absently.

"Is it shorting out on you?"

"No, it's washing off."

"Washing off? Must be in the lines," Pop grunted.

"Lines are all right," Jamison said. "The bait keeps coming off. It is getting too late in the day for them to bite, anyway."

"Oh," Pop returned, slightly nonplused. "I was talking about your Cadillac. "How long have you had trouble?"

"Been here two hours and only a couple of nibbles." Jamison exploded.

Pop frowned, waiting for the man's attention.

(Continued on page 106)

One to Remember

(FOR YOUR BULLETIN BOARD)

**A Good Salesman
Ends Every Sentence**



**With A
PROPOSITION**

**MOTOR
AGE**

MAY 1955

Hilton's
MOTOR

WORK-A-DAY

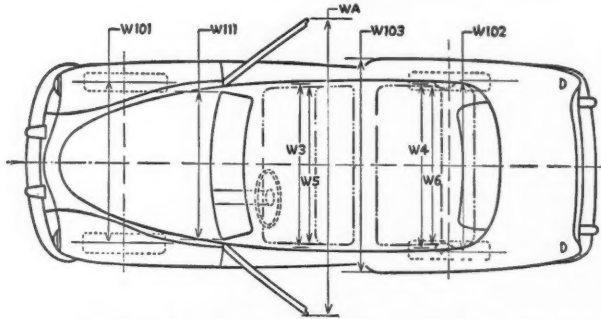
SPEC
ON ALL
1955
CARS

OR

BUS
GOING ON
AS USUAL
DURING
REPAIRS

SPARK
PLUG

WIDTH DIMENSIONS



1955 PASSENGER CAR BODY DATA

All dimensions apply to 5 or 6 passenger, 4-door sedan or equivalent model.

PASSENGER CAR MAKE AND MODEL	MISCELLANEOUS								GENERAL DIMENSIONS (Ins.)										
	Doors Hinged		Type of Finish	Hood Opening	Hood Counterbalanced	Hood Release Control	Windshield Type	Rear Window Type	L101 Wheelbase	Overhang		Tread		Overall Dimensions				W111	
	Front Door	Rear Door								L104 Front—Including Bumper Guards	L105 Rear—Including Bumper Guards	W101 Front	W102 Rear	L103 Length—Bumper to Bumper	W103 Width	WA Width— Doors Open	HB Height— Unloaded		Windshield Max Width
—1—																			
Buick.....Special 40	F	F	L	Ff	Y	Ex	C	C	122.0	35.4	49.3	59.0	59.0	106.7	76.2	145.8	(a)	61.0	
.....Super 50	F	F	L	Ff	Y	Ex	C	C	127.0	35.4	53.6	59.0	62.2	216.0	80.0	147.8	64.1	61.0	
.....Century 60	F	F	L	Ff	Y	Ex	C	C	122.0	35.4	49.3	59.0	59.0	206.7	76.2	145.8	62.2	61.0	
.....Roadmaster 70	F	F	L	Ff	Y	Ex	C	C	127.0	35.4	53.6	59.0	62.2	216.0	80.0	147.8	64.3	61.0	
Cadillac.....60	F	F	L	F	Y	Ex	C	C	133.0	34.8	59.5	60.0	63.1	227.3	79.8	152.4	64.1	61.0	
.....62	F	F	L	F	Y	Ex	C	C	129.0	34.8	52.5	60.0	63.1	216.3	79.8	152.4	64.1	61.0	
.....75	F	F	L	F	Y	Ex	C	IF	149.8	34.8	52.5	60.0	63.2	237.1	79.8	150.7	66.2	61.0	
Chevrolet One-Fifty, Two-Ten, Bel Air 6, 8	F	F	L	F	Y	Ex	C	C	115.0	31.1	49.5	58.0	58.8	195.6	73.8	140.7	62.1	58.5	
.....Corvette 2934	F	N	L	RA	N	In	C	IF	102.0	26.1	38.9	57.0	59.0	167.0	70.0	125.0	52.2	51.9	
Chrysler.....Windsor DeLuxe C-67	F	F	E	Ff	Y	Ex	C	C	126.0	36.8	55.8	60.2	59.6	218.6	79.1	153.0	62.7	62.0	
.....New Yorker DeLuxe C-68	F	F	E	Ff	Y	Ex	C	C	126.0	36.8	56.0	60.2	59.6	218.8	79.1	153.0	62.9	62.0	
.....Imperial C-69	F	F	E	Ff	Y	Ex	C	C	130.0	38.1	56.0	61.0	60.4	224.1	79.1	160.0	63.1	62.0	
.....Crown Imperial C-70	F	F	E	Ff	Y	Ex	C	C	149.5	38.1	56.0	61.7	60.8	243.6	79.1	153.0	64.4	62.0	
.....Chrysler "300" C-300	F	N	E	Ff	Y	Ex	C	C	126.0	36.8	55.8	60.2	59.6	218.6	79.1	165.5	61.4	62.0	
De Soto.....Firelite S-21, Firedome S-22	F	F	E	Ff	Y	Ex	C	C	126.0	36.6	55.3	60.2	59.6	217.9	78.3	153.0	62.7	62.0	
Dodge Coronet, Royal & Cust. Royal D-55	F	F	E	Ff	Y	Ex	C	C	120.0	39.3	52.8	58.9	59.1	212.1	74.5	151.4	62.6	59.5	
.....Coronet D-56-1	F	F	E	Ff	Y	Ex	C	C	120.0	39.3	52.8	58.9	59.1	212.1	74.5	151.4	62.4	59.5	
Ford.....Mainline, Customline, Fairlane	F	F	E	Ff	Y	Ex	C	C	115.5	33.9	49.1	58.0	56.0	198.5	75.9	148.9	62.8	59.5	
.....Thunderbird 40A, 40B	F	N	E	RA	N	In	C	C	102.0	27.6	45.7	56.0	56.0	175.3	70.3	148.9	50.2	56.8	
Hudson.....Wasp 35540	F	F	E	Ff	Y	Ex	C	C	114.3	34.9	(b)	59.5	59.7	(c)	78.0	148.3	NA	62.3	
.....Hornet 35560, 35580	F	F	E	Ff	Y	Ex	C	C	121.3	34.9	(b)	59.5	60.5	(d)	78.0	148.3	NA	62.3	
Lincoln Custom 73A, Special Custom 73B	F	F	LE	Ff	Y	Ex	C	C	123.0	37.5	55.1	58.5	60.0	215.6	77.4	149.0	64.2	56.0	
Mercury.....Custom, Monterey	F	F	E	Ff	Y	Ex	C	C	119.0	34.3	53.0	58.0	59.0	206.3	76.4	148.9	63.1	59.5	
.....Montclair	F	F	E	Ff	Y	Ex	C	C	119.0	34.3	53.0	58.0	59.0	206.3	76.4	148.9	60.5	59.5	
Nash.....Statesman 5540	F	F	E	Ff	Y	Ex	C	3C	114.3	34.9	(b)	55.5	59.7	(c)	78.0	148.3	NA	62.3	
.....Ambassador 5560, 5580	F	F	E	Ff	Y	Ex	C	3C	121.3	34.9	(b)	56.6	60.5	(d)	78.0	148.3	NA	62.3	
Nash-Hudson.....Metropolitan 541, 542	F	N	E	Ff	N	Ex	1F	3C	85.0	28.4	36.2	45.3	44.8	149.5	61.5	135.0	NA	43.8	
.....Rambler 5510-100" WB	F	N	E	Ff	Y	Ex	C	(e)	100.0	31.4	(f)	54.6	53.0	(g)	73.5	150.1	NA	50.0	
.....Rambler 5510-108" WB	F	F	E	Ff	Y	Ex	C	(e)	108.0	31.4	(f)	54.6	53.0	(h)	73.5	130.3	NA	50.0	
Oldsmobile.....88, Super 88	F	F	L	F	Y	Ex	C	C	122.0	33.6	47.8	59.0	58.0	203.4	77.8	137.7	62.2	58.0	
.....Ninety-Eight	F	F	L	F	Y	Ex	C	C	126.0	33.6	52.8	59.0	58.0	213.4	77.8	137.7	62.2	58.0	
Packard Clip. DeL., Sup. 5540, Cust. 5560	F	F	L	F	Y	Ex	C	C	122.0	36.2	56.6	59.7	60.0	214.8	78.0	148.0	NA	59.4	
.....Packard 5580	F	F	L	F	Y	Ex	C	C	127.0	36.2	55.3	60.0	60.9	218.5	78.0	148.0	NA	59.4	
Plymouth Plaza, Belvedere, Savoy P26, 27	F	F	E	Ff	Y	Ex	C	C	115.0	35.8	53.0	58.4	58.5	203.8	74.6	151.4	62.2	59.5	
Pontiac.....Chieftain 55-27	F	F	L	F	Y	Ex	C	C	122.0	32.7	48.5	58.7	59.1	203.2	75.4	143.2	62.5	59.4	
.....Star Chief 55-28	F	F	L	F	Y	Ex	C	C	124.0	32.7	53.5	58.7	59.1	210.2	75.4	143.2	62.5	59.4	
Studebaker.....Champion 16G6	F	F	E	Ff	Y	Ex	C	C	116.5	37.4	48.4	56.7	55.7	202.3	(i)	135.4	59.8	(j)	
.....Commander 16G8	F	F	E	Ff	Y	Ex	C	C	116.5	37.4	48.4	56.7	55.7	202.3	(i)	135.4	60.0	(j)	
.....President 6H	F	F	E	Ff	Y	Ex	C	C	120.5	37.4	48.4	56.7	55.7	206.3	70.4	135.4	60.0	(j)	
Willys.....Bermuda, Custom 6-226-A	F	F	E	F	Y	Ex	C	C	108.0	37.4	44.5	58.0	57.0	189.9	72.0	139.5	62.8	55.8	

ABBREVIATIONS

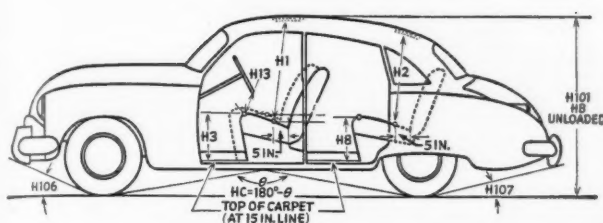
- *—Loaded with top down.
- (a)—62.0 with 7.10/15 tires; 62.2 with 7.60/15 tires.
- (b)—53.1 std.; 63.1 with rear tire mount.
- (c)—202.3 std.; 212.3 with rear tire mount.
- (d)—209.3 std.; 219.3 with rear tire mount.

- (e)—2 & 4 door station wagon and 2 door sedan, one piece flat; hardtop and 4 door sedan, three piece curved.
- (f)—46.9 std.; 54.0 with rear tire mount.
- (g)—178.3 std.; 185.4 with rear tire mount.
- (h)—186.3 std.; 193.4 with rear tire mount.

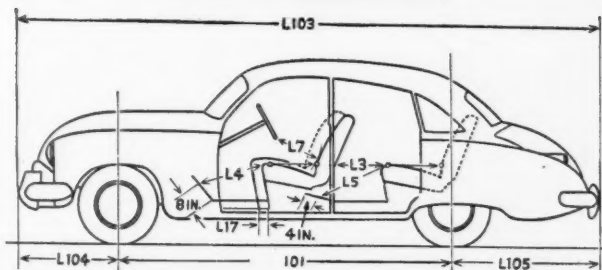
- (i)—Regal, 70.4; Custom and DeLuxe, 69.2.
- (j)—Early cars, 50.1; late cars, 55.8.
- C—One piece curved.
- 3C—Three piece curved.
- E—Enamel.
- Ex—External.
- F—Front.
- 1F—One piece flat.

- Ff—Front, full.
- In—Internal.
- L—Lacquer.
- LE—Lacquer or enamel.
- NA—No or none.
- NA—Dimension not available.
- RA—Reverse alligator.
- WB—Wheel base.
- Y—Yes.

HEIGHT DIMENSIONS



LENGTH DIMENSIONS



1955 PASSENGER CAR BODY DIMENSIONS

All dimensions apply to 5 or 6 passenger, 4-door sedan or equivalent model.

PASSENGER CAR MAKE AND MODEL	HEIGHT DIMENSIONS									WIDTH DIMENSIONS				LENGTH DIMENSIONS				
	Interior					Exterior				Interior				Interior				
	H1	H2	H3	H4	H5	H106	H107	HC	HD	W3	W4	W5	W6	L3	L4	L5	L7	L17
	Front Headroom	Rear Headroom	Front Seat Height to Floor	Rear Seat Height to Floor	Steering Wheel Height to Floor	Angle of Approach—Deg	Angle of Departure—Deg	Ramp Breakover Angle—Deg	Minimum Road Clearance—In	Front Seat Shoulder Room	Rear Seat Shoulder Room	Front Seat Hip Room	Rear Seat Hip Room	Back of Front Seat to Rear Seat Back	Leg Room—Front	Leg Room—Rear	Steering Wheel Clearance	Adjustment of Front Seat
Buick..... Special 40	35.6	34.0	12.6	12.4	5.2	(a)	(b)	(c)	(d)	58.2	56.7	62.5	62.4	32.4	42.3	41.8	13.4	4.4
..... Super 50	36.6	35.2	13.2	12.1	5.1	25.0	11.1	12.9	6.6 BH	59.4	58.7	64.9	65.7	34.8	43.2	45.1	13.5	4.0
..... Century 60	35.6	34.0	12.6	12.4	5.2	25.0	12.6	13.5	6.6 BH	58.2	56.7	62.6	62.4	32.4	42.3	41.4	13.4	4.4
..... Roadmaster 70	35.9	35.1	13.9	12.7	4.4	25.7	11.5	13.3	6.8 BH	59.4	58.7	64.7	65.7	35.0	43.6	45.6	13.5	4.0
Cadillac..... 60	35.8	35.6	13.8	12.8	5.4	19.8	13.8	11.6	6.1 FFK	59.4	58.9	64.3	65.2	35.7	43.3	46.3	14.1	4.0
..... 62	35.8	35.6	13.8	12.8	5.4	19.8	11.8	11.6	6.1 FFK	59.4	58.9	64.3	65.2	35.7	43.3	46.3	14.1	4.0
..... 75	36.5	35.1	13.8	14.4	5.6	22.0	14.8	11.6	6.7 ER	59.3	58.4	64.4	64.7	59.1	53.5	43.4	14.2	4.0
Chevrolet..... One-Fifty, Two-Ten, Bel Air 2400	35.7	35.4	12.5	13.0	5.2	28.3	16.0	13.5*	6.5 UEP	56.8	56.4	62.0	63.0	30.4	43.1	40.8	13.7	4.4
..... Corvette 2934	35.4	N	8.2	N	5.3	30.0	19.5	35.0	6.0 BDO	51.3	N	57.2	N	N	41.0	N	13.4	4.4
Chrysler..... Windsor DeLuxe C-67	35.0	34.5	13.3	13.5	5.4	18.0	10.0	11.0	6.2 FSR	58.4	58.4	63.3	64.0	34.0	44.8	44.8	14.6	5.0
..... New Yorker DeLuxe C-68	35.0	34.5	13.3	13.5	5.4	20.0	11.0	12.0	6.5 FSR	58.4	58.4	63.3	64.0	34.0	44.8	44.8	14.6	5.0
..... Imperial C-69	35.0	34.6	13.3	13.5	5.4	17.0	10.0	11.0	6.2 FSR	58.3	58.3	62.5	62.0	38.0	44.8	44.8	14.6	5.0
..... Crown Imperial C-70	37.0	36.3	12.0	13.0	7.0	18.0	12.0	11.0	7.3 FSR	58.3	56.5	63.5	64.5	59.3	42.5	52.5	13.5	3.5
..... Chrysler "300" C-300	34.5	34.0	13.3	13.5	5.4	18.0	11.0	11.0	5.8 FSR	58.5	56.5	63.0	65.0	30.6	44.6	41.6	14.6	5.0
De Soto..... Firelite S-21	35.0	34.5	13.3	13.5	5.4	21.0	12.0	11.0	6.2 FSR	58.4	58.4	63.3	64.0	34.0	44.6	44.8	14.6	5.0
..... Firedome S-22	35.0	34.5	13.3	13.5	5.4	21.0	12.0	11.0	6.3 FSR	58.4	58.4	63.3	64.0	34.0	44.6	44.8	14.6	5.0
Dodge..... Coronet, Royal, Custom Royal D-55	35.5	34.9	13.4	12.8	5.4	18.0	12.0	11.0	5.5 OP	58.0	57.8	62.5	62.8	31.5	44.5	45.0	14.7	5.0
..... Coronet D-56-1	35.5	34.9	13.4	12.8	5.4	18.0	12.0	11.0	5.0 OP	58.0	57.8	62.5	62.8	31.5	44.5	45.0	14.7	5.0
Ford..... Mainline, Customline, Fairlane 6	35.1	34.2	12.6	13.1	5.4	23.2	13.0	13.9	6.5 RS	57.0	56.8	60.5	60.3	29.9	44.3	41.9	(e)	4.9
..... Mainline, Customline, Fairlane 8	35.1	34.2	12.6	13.1	5.4	23.2	12.0	13.9	6.5 RS	57.0	56.8	60.5	60.3	29.9	44.3	41.9	(e)	4.9
..... Thunderbird 40A, 40B	(f)	N	7.3	N	5.6†	23.6	15.2	31.0		53.3	N	58.8	N	N	45.4	N	14.8†	4.0
Hudson..... Wasp 35540	37.5	36.0	12.3	13.8	6.4	25.0	(g)	13.0	NA	61.5	61.3	65.0	64.5	31.8	42.5	40.1	14.3	5.0
..... Hornet 35560, 35580	37.5	36.0	12.3	13.8	6.4	25.5	(h)	13.5	NA	61.5	61.3	65.0	64.5	31.8	42.5	40.1	14.3	5.0
Lincoln..... Custom 73A, Special Custom 73B	35.5	34.7	13.5	12.3	4.9	20.0	11.5	13.9	7.4 FCM	57.5	57.2	62.3	62.1	32.0	44.3	42.8	14.3	4.1
Mercury..... Custom	35.4	34.2	12.0	13.1	5.5	22.2	12.0	13.4	6.6 FO	57.0	56.8	60.6	60.3	31.6	43.8	42.8	13.9	4.9
..... Monterey	35.4	34.2	12.0	13.1	5.5	22.2	11.9	13.4	6.6 FO	57.0	56.8	60.6	60.3	31.6	43.8	42.8	13.9	4.9
..... Montclair	33.5	32.2	11.5	13.1	5.5	22.2	11.9	13.4	6.6 FO	57.4	57.5	60.6	60.5	29.2	43.6	40.6	13.7	4.9
Nash..... Statesman 5540	37.5	36.0	12.3	13.8	6.4	25.0	(g)	13.0	NA	61.5	61.3	65.0	64.5	31.8	42.5	40.1	14.3	5.0
..... Ambassador 5560, 5580	37.5	36.0	12.3	13.8	6.4	25.5	(h)	13.5	NA	61.5	61.3	65.0	64.5	31.8	42.5	40.1	14.3	5.0
Nash-Hudson..... Metropolitan 541, 542	35.8	N	10.0	N	6.8	30.8	20.5	20.0	NA	45.3	N	49.8	N	N	43.3	N	14.6	4.0
..... Rambler 5510, 100* WB	36.5	35.5	12.0	14.0	6.3	23.0	(i)	21.0	NA	51.5	49.8	58.0	45.3	26.3	44.0	37.5	14.0	5.5
..... Rambler 5510, 108* WB	36.5	35.5	12.0	14.0	6.3	23.0	(i)	19.0	NA	52.5	52.3	60.0	59.5	30.3	44.0	39.5	14.0	5.5
Oldsmobile..... 88	35.6	34.6	13.2	12.4	4.9	25.9	15.2	12.7	6.3 FSR	58.2	56.7	62.3	62.4	32.6	42.9	43.8	12.9	4.4
..... Super 88	35.6	33.8	13.2	13.2	4.9	25.9	15.2	12.7	6.3 FSR	58.2	56.7	62.3	62.1	32.6	42.9	44.3	12.9	4.4
..... Ninety-Eight	35.6	33.8	13.1	13.0	4.9	25.9	13.5	12.3	6.2 FSR	58.2	56.7	62.3	62.1	32.4	42.8	44.0	12.9	4.4
Packard..... Clipper DeLuxe & Super 5540	36.2	34.5	13.8	13.4	5.1	29.0	8.8	5.4	NA	57.0	55.5	62.8	62.0	31.4	43.3	43.8	14.3	5.0
..... Clipper Custom 5560	36.2	34.5	13.8	13.4	5.1	29.0	9.3	5.4	NA	57.0	55.5	62.8	62.0	31.4	43.3	43.8	14.3	5.0
..... Packard 5580	36.2	34.9	13.0	13.8	5.5	29.0	13.5	5.8	NA	57.0	55.5	62.8	62.0	31.4	43.0	48.8	14.8	5.0
Plymouth..... Plaza, Belvedere, Savoy P-26	35.0	34.6	13.3	13.1	5.4	19.0	12.0	12.0	5.4 OP	58.0	57.8	62.5	62.8	30.8	44.5	44.5	14.6	5.0
..... Plaza, Belvedere, Savoy P-27	35.0	34.6	13.3	13.1	5.4	19.0	12.0	12.0	5.6 OP	58.0	57.8	62.5	62.8	30.8	44.5	44.5	14.6	5.0
Pontiac..... Chieftain 55-27	35.6	35.9	13.7	12.0	5.1	26.1	15.2	12.7	6.7 FSR	56.6	56.4	61.8	63.1	32.6	42.7	42.8	13.3	4.4
..... Star Chief 55-28	35.6	35.9	13.7	12.0	5.1	26.1	13.6	12.5	6.7 FSR	56.6	56.4	61.8	63.1	32.6	42.7	42.8	13.3	4.4
Studebaker..... Champion 16G6	36.0	35.0	13.5	12.0	5.4	20.0	18.0	14.5	6.5 ERS	55.5	54.5	59.5	59.0	28.3	42.5	39.0	15.5	5.5
..... Commander 16G8	36.0	35.0	13.5	12.0	5.4	22.0	17.5	14.5	7.3 ERS	55.5	54.5	59.5	59.0	28.3	42.5	39.0	15.5	5.5
..... President 6H	36.0	35.0	13.5	12.5	5.4	22.0	17.5	14.5	7.3 ERS	55.5	54.5	59.5	59.0	32.3	42.5	41.0	15.5	5.5
Willis..... Bermuda, Custom 6-226-A	34.6	34.1	12.3	13.0	5.4	22.0	17.0	15.0	6.5 M	57.0	57.0	61.0	61.0	28.3	41.6	37.9	12.0	4.0

ABBREVIATIONS

- *—Loaded.
†—Wheel in neutral position.
(a)—24.4 with 7.10/15 tires; 25.0 with 7.60/15 tires.
(b)—12.2 with 7.10/15 tires; 12.6 with 7.60/15 tires.
(c)—13.0 with 7.10/15 tires; 13.5 with 7.60/15 tires.
(d)—6.3 at mid section with 7.10/15 tires; 6.6 at bell housing with 7.60/15 tires.
(e)—Mainline and Customline, 15.0; Fairlane, 14.9.
(f)—40A, 33.6; 40B, 33.2.
(g)—14.5 std.; 11.5 with rear tire mount.
(h)—15.5 std.; 12.5 with rear tire mount.
(i)—15.3 std.; 13.3 with rear tire mount.
BDO—Below door opening.
BH—Bell housing.
ER—Exhaust resonator.
ERS—Engine rear support cross member.
FCM—Number two frame cross member.
FFK—Front of frame kick up.
FO—Number one outrigger on frame.
FSR—Frame side rail.
N—No or none.
NA—Dimension not available.
OP—Oil pan.
RS—Rear shock absorber.
UEP—Under exhaust pipe. WB—Wheelbase.

GENERAL ENGINE DATA — PISTON SPECIFICATIONS

PASSENGER CAR MAKE AND MODEL	Type	Valve Arrangement	Number of Cylinders, Bore and Stroke	Piston Displacement— Cu. In.	Compression Ratio (to-1)		Cylinder Head Material	Mount- ing Points		Taxable Horsepower	Adv. Max. Brake Hp. at Engine RPM	Max. Torque (lb. ft. at RPM)	Recommended Idle Speed—RPM	Shipping Weight (lbs.) 5-6 Pass., 4 Door Sedan	Weight per Cu. In., #	Weight per Hp., #	Horsepower per Cu. In.	Material	Description and Finish	Weight—Oz. (Piston Only)	Clearance			Ring Groove Depth			
																					Top Land	Top of Skirt	Bottom of Skirt	No. 1 Ring	No. 2 Ring	No. 3 Ring	No. 4 Ring
Buick	Special 40	I H	8-3 1/2 x 3 1/2	264.0	7.50	8.40	CI	2	1	42.05	188-4800 ²	256-2400 ²	450	3725	16.00	22.47	.712	AA	Cg, Ts, Ds, A	16.25 ³	.0015	.0015	.0015	.1955	.1980	.1980	N
	Super 50; Century 70	I H	8-4 x 3 1/2	322.0	8.40	9.00 ¹	CI	2	1	51.20	236-4600 ²	330-3000 ²	450	3825	13.43	18.33	.733	AA	Cg, Ts, Ds, A	19.95	.0017	.0017	.0017	.2145	.2170	.2170	N
	Roadmaster 70	I H	8-4 x 3 1/2	322.0	8.40	9.00 ¹	CI	2	1	51.20	236-4600 ²	330-3000 ²	450	4300	14.91	20.34	.733	AA	Cg, Ts, Ds, A	19.95	.0017	.0017	.0017	.2145	.2170	.2170	N
Cadillac	60, 62, 75	I H	8-3 1/2 x 3 1/2	331.0	7.50	8.40	CI	2	2	46.50	250-4600 ⁴	345-2800 ²	400 ⁵	4370	14.71	19.48 ⁶	.755 ⁷	AA	Tc, Cg, St	20.00	.0020	.0020	.0020	.2015	.2015	.2015	N
Chevrolet	One-Fifty, Two-Ten, Bel Air 6	I H	6-3 1/2 x 3 1/2	235.5	7.50	8.00	CI	2	2	40.40	123-3800 ⁸	207-2000 ⁹	475 ¹⁰	3115	15.35	29.39 ¹¹	.522 ¹²	AA	Cg, Tc, Cg, Fh, Ss	18.88	.0370	.0008	.0008	.2148	.2148	.2148	N
	Corvette 2834, 8	I H	6-3 1/2 x 3 1/2	265.0	8.00	8.00	CI	2	2	45.00	162-4400 ¹³	257-2200 ¹⁴	475 ¹⁵	3075	13.49	22.07	.611	AA	Cg, Tc, Cg, Fh, Ss	18.88	.0370	.0008	.0008	.2148	.2148	.2148	N
	Corvette 2834, 8	I H	6-3 1/2 x 3 1/2	265.0	8.00	8.00	CI	2	2	45.00	162-4400 ¹³	257-2200 ¹⁴	475 ¹⁵	3075	13.49	22.07	.611	AA	Cg, Tc, Cg, Fh, Ss	18.88	.0370	.0008	.0008	.2148	.2148	.2148	N
Chrysler	Windor Deluxe C-67	I H	8-3 1/2 x 3 1/2	331.0	8.00	8.00	CI	2	2	46.50	155-4200	260-3000	475	2675	13.61	17.45	.668	AA	Fh, Tc, Cg, Fh, Ss	18.88	.0370	.0008	.0008	.2148	.2148	.2148	N
	New Yorker Deluxe C-68	I H	8-3 1/2 x 3 1/2	331.0	8.00	8.00	CI	2	2	46.50	155-4200	260-3000	475	3925	14.70	23.54	.625	AA	Sb, Cg, Tc	20.80	.0310	.0010	.0010	.2148	.2148	.2148	N
	Imperial C-69, Crown Imperial C-70	I H	8-3 1/2 x 3 1/2	331.0	8.00	8.00	CI	2	2	46.50	155-4200	260-3000	475	4165	14.08	18.64	.755	AA	Sb, Cg, Tc	20.80	.0310	.0010	.0010	.2148	.2148	.2148	N
	Chrysler "300" C-300	I H	8-3 1/2 x 3 1/2	331.0	8.50	8.50	CI	2	2	46.50	250-4600	340-2800	475	4565	13.78	18.26	.755	AA	Sb, Cg, Tc	20.80	.0310	.0010	.0010	.2148	.2148	.2148	N
De Soto	Fireflite S-21	I H	8-3 1/2 x 3 1/2	331.0	7.50	8.00	CI	2	2	46.50	300-5200	345-3200	475	4005	12.10	13.35	.906	AA	Sb, Cg, Tc	20.80	.0310	.0010	.0010	.2148	.2148	.2148	N
	Fireflite S-22	I H	8-3 1/2 x 3 1/2	331.0	7.50	8.00	CI	2	2	46.50	300-5200	345-3200	475	3940	15.26	22.20	.687	AA	Sb, Cg, Tc	20.80	.0310	.0010	.0010	.2148	.2148	.2148	N
Dodge	Coronet D-55-1, Royal D-55-2	I H	8-3 1/2 x 3 1/2	291.0	7.50	8.00	CI	2	2	44.30	185-4400	245-2800	475	3870	15.02	23.62	.636	AA	Sb, Cg, Tc	18.20	.0320	.0010	.0010	.2148	.2148	.2148	N
	Custom Royal D-55-3	I H	8-3 1/2 x 3 1/2	270.0	7.50	8.00	CI	2	2	42.20	175-4400 ¹⁶	240-2400 ¹⁷	475	3395	14.43	22.26	.648	AA	Sb, Cg, Tc	16.20	.0300	.0010	.0010	.2148	.2148	.2148	N
Ford	Mainline, Customline, Fairlane 8	I H	8-3 1/2 x 3 1/2	230.0	7.40	8.00	CI	2	2	42.20	183-4400 ¹⁸	245-2400 ¹⁹	475	3485	14.76	21.76	.678	AA	Sb, Cg, Tc	16.20	.0300	.0010	.0010	.2148	.2148	.2148	N
	Coronet D-56-1	I H	8-3 1/2 x 3 1/2	230.0	7.40	8.00	CI	2	2	42.20	183-4400 ¹⁸	245-2400 ¹⁹	475	3485	14.76	21.76	.678	AA	Sb, Cg, Tc	16.20	.0300	.0010	.0010	.2148	.2148	.2148	N
Hudson	Wasp 35560	I H	8-3 1/2 x 3 1/2	272.0	7.50	8.50	CI	2	2	31.54	162-4400 ²⁰	256-2200 ²¹	500	3106	16.17	30.05	.558	AA	Au, So, Cg, Fh, Tc	19.22	.0235	.0016	.0016	.2105	.2105	.2105	N
	Harrier 35560	I H	8-3 1/2 x 3 1/2	272.0	7.50	8.50	CI	2	2	31.54	162-4400 ²⁰	256-2200 ²¹	500	3216	13.66	22.82	.561 ²²	AA	Au, So, Cg, Fh, Tc	19.22	.0235	.0016	.0016	.2105	.2105	.2105	N
	Lincoln Custom 73A, Special Custom 73B	I H	8-3 1/2 x 3 1/2	302.0	7.50	8.00	CI	2	2	41.86	115-4000 ²³	280-2600 ²⁴	500 ²⁵	3265	16.11	23.30	.569	AA	Au, So, Cg, Fh, Tc	19.22	.0235	.0016	.0016	.2105	.2105	.2105	N
	Mercury Custom, Montclair	I H	8-3 1/2 x 3 1/2	302.0	7.50	8.00	CI	2	2	41.86	115-4000 ²³	280-2600 ²⁴	500 ²⁵	3265	16.11	23.30	.569	AA	Au, So, Cg, Fh, Tc	19.22	.0235	.0016	.0016	.2105	.2105	.2105	N
	Nash Ambassador 5540	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.2035	.2035	N
	Nash Ambassador 5580	I H	8-3 1/2 x 3 1/2	341.0	8.50	8.00	CI	2	2	49.60	226-4400	302-2300	450 ²⁶	3806	11.89	18.30	.680	AA	Cg, Ss, Tc	22.26	.0240	.0013	.0013	.2035	.203		

CRANKSHAFTS, CAMSHAFTS AND BEARING DIMENSIONS

[illegible]

ABBREVIATIONS

- Number four bearing is of cast iron.
- Number one bearing is of cast iron.
- Number five bearing is babbitt, steel backed.
- P-26-1 has none.
- Rear, .0021.

(a) —Front, .0013; rear, .0028; all others, .0018.
 (b) —Link Belt, 1140; Morse, 1117 or 1118.
 (c) —Link Belt, 48; Morse, 64.
 (d) —Link Belt, 8438; Morse, 8750.
 (e) —Link Belt, 500; Morse, 375.
 A1 —Alloy iron.
 A2 —Aluminum.

Bcs—Babbitt or copper lead bronze, steel backed
BFS—Bakelite and fabric composition with steel hub,
Bsb—Babbitt, steel backed.
Ch—Chain.
Cl—Cast iron
Cls—Copper lead, steel backed.
CS—Cast steel.

GSH—Celeron with steel hub.
DDT—Damped dynamic torsional.
DFS—Drop forged steel.
Dab—Durex, steel backed.
FS—Forged steel.
G—Gear.
HB—Harmonic balancer.
HMS—High manganese steel.
LB—Link Belt.

L-M—Link Belt or Morse.
Mor—Morse.
N—No or none.
NA—Not available.
NO—Not available.
OSC—Oscillating (rubber floating).
RA—Rubber absorption.
RD—Rubber dynamic.
Re—Removable.
Ren—Renold.

RF—Rubber floated.
R-F—Rubber and friction.
RM—Rubber mounted disc.
Ru—Rubber.
St—Steel.
V—Viscous.

VALVE DATA

PASSENGER CAR
MAKE AND
MODEL

	INTAKE										EXHAUST																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	Hydraulic Lifters					Special Provision for Valve Rotation (Intake or Exhaust)					Rocker Ratio—1 to 1					Material																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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VALVE TIMING—ENGINE OILING—EXHAUST SYSTEMS

PASSENGER CAR
MAKE AND
MODEL[illegible]

ABBREVIATIONS

ABBREVIATIONS

—Off seat.
—Miles per hour.
—When equipped with Powerglide transmission.
(i)—Branch, 2; main, 2 $\frac{1}{4}$.
(j)—Branch, 2; main, 2 $\frac{3}{4}$ with single exhaust, 2 with dual exhaust.
(k)—2 with single exhaust; $\frac{1}{4}$ with dual exhaust.
(l)—Branch, 1 $\frac{1}{2}$; main, 2.
(m)—Branch, 1 $\frac{1}{8}$; main, 2.
(n)—Branch 1 $\frac{1}{4}$; main, 2 $\frac{1}{2}$.
Bp—By-pass. C—Cold.
CB—Crankshaft balancer.
CD—Crankshaft drive pulley.
Cdp—Crankshaft drive crankshaft bearing.
D—Down from back.
DF—Dynamic flow.
DL—Directed jet.
DS—Directed spray.
E—Electric tell tale.
ER—End of ramps used for timing.
F—Floating.
FDP—Fan drive pulley.
FF—Full flow.
Fly—Flywheel.
G—Gear.
GD—Gravity from drain back.
HG—Hot.
HB—Harmonic balancer.
HBP—Heavy balancer pulley.
HD—Heavy duty.

HR—Squirt holes in rod.
IJ—Intermittent jet.
IP—Indexed pressure.
JS—Jet spray.
M—Mechanical.
MCF—Metered centrifugal flow.
MF—Metered flow.
MJ—Metered jet.
MIS—Metered jet spray.
MP—Metered pressure.
MS—Metered spray.
NZ—Nozzle.
NR—No recommendation.
NU—Not used.

OM—Oil mist.
P—Pressure.
PF—Positive flow.
PI—Partial flow.
PJ—Pressure jet.
PS—Pressure stream.
PS—Pressure spray.
Pul—Pulley.
Reg—Regular.
RR—Reverse flow.
RR—Regular or premium.
RIS—Reverse flow resonator.
RSR—Reverse flow with straight through resonators.

FUEL SYSTEM

ABBREVIATIONS

*—Four barrel carburetor and dual exhaust optional.

1-14 — Same as C-48, C-49, C-70 or S-21 when equipped with air conditioning.

— Same as C-48, C-49, C-70 or S-21 when equipped with air conditioning.

— Automatic, with four barrel carburetor.

— Oil bath, with four barrel carburetor.

— Two used on Carlbear.

— (a)—Stromberg, AAV-267; Carter, WCD.

(b)—Carter, WCFB; Rochester, 4G.

(c)—18.0 with standard transmission; 20.0 with Dynaflow.

(d)—16.5 with standard transmission; 18.5 with Dynaflow.

(e)—Carter, WCFB-218S-S and 226S-S with standard transmission; Rochester, 7007370 standard; 7007371 with air conditioning; Eldorado, 7007241, front; 7007240, rear; 7007241 standard, front; 7007942, rear with air conditioning.

(f)—Eldorado 2.

(g)—7007181 with standard transmission; 7007180 with Powerglide.

(h)—7008005 with standard transmission; 7008004 with Powerglide.

(i)—Molded, 1 1/4 x 12; straight, 1 1/4 x 10 1/2.

(j)—WW3-131 standard; WCFB-2253-S optional.

(k)—WW3-120 standard; WCFB-2253-S optional.

(l)—Standard with overdrive and Hydramatic; none with standard transmission.

(m)—Single carburetor, WCD-2061S; dual carburetors, YF-2258-S.

(n)—Single carburetor, one; dual carburetors, two.

(o)—Single carburetor, dual downdraft; dual carburetors, single downdraft.

(p)—Single carburetor, YH-93S-S; dual carburetors, front, YH-973-S; rear, YH-974-S.

(q)—1 1/4 x 3 and 1 1/4 x 5 1/4.

(r)—Carter, WGD-2207S; Rochester, 7006100.

(s)—With standard transmission, WW-optional.

6-115, with automatic transmission, WW-4 110.

(t)—WCFB-2210-S with standard transmission; State, WCFB-2214-S, DeLuxe, WCFB-2330-S with automatic transmission.

(u)—Single carburetor, WAI-2009-SA; dual carburetors, WAI-2013-S.

(v)—Single carburetor, WDG-2252-S; dual carburetors, WAI-2113-S.

(w)—Front, WCFB-2315-S; rear, WCFB-2317-S.

A—Automatic.

BB—Ball and Ball (Carter).

BP—By-pass.

Car—Carter Carburetor Co.

Cell—Cellular.

Ch—Choke.

CR—Carter or Rochester.

D—Dry.

DF—Downdraft four barrel.

DS—Downdraft single throat.

EFC—Engine front cover.

FE—External.

FF—Front of engine block.

FI—Ford or Holley.

FI—Fin and tube.

Int—Integral.

LFE—Left front of engine.

M—Manual.

Mo—Molded.

MS—Molded and straight.

N—No or none.

OB—Oil bath.

OC—On crankcase.

Car—On carburetor.

OM—Oiled crimped metal.

V—Yes.

Zen—Zenith, Ltd.

D—Oil wetted.

PP—Plasticized paper, water repellent, and resistant.

Pre—Premium.

RCE—Right center of engine block.

RFE—Right rear of engine block.

RFE—Right rear of engine block.

RFE—Rochester Products Div.

RSE—Right side of engine block.

SC—Screen.

SC—Stromberg or Carter.

SS—Side draft, single throat.

SS—Straight.

Sid—Standard.

Sir—Stromberg Carburetor Div.

TC—Tube and center.

V—Yes.

Zen—Zenith, Ltd.

D—Oil wetted.

STARTERS AND IGNITION SYSTEMS

STARTING SYSTEM										IGNITION SYSTEM																						
MOTOR						CONTROL		DRIVE		COIL			DISTRIBUTOR																			
Make	Model	Engine Cranking Speed (RPM)	Test Conditions	Lock Test		No Load Test		Switch	Starting Procedure	Engagement—Type	Pinion Meshes	Number Teeth	Flywheel	Flywheel Tooth Face Width	Make	Model	Engine Stopped		Amps.	Make	Model	Centrifugal Advance (Averages)		Vacuum Advance Start (in Hg.)	Vacuum Advance (max. deg. @ in. Hg.)	Breaker Gap (in.)	Cam Angle (deg.)	Breaker Arm Position (oz.)				
				Amps	Torque (ft. lb.)	Amps	Volts																									
PASSENGER CAR MAKE AND MODEL	Buick.....	8, 40, 50, 60, 70	160	ED	470	5.10	12.0	95	10.20	4000	Sol	Dap	OC	F	9	180	.573	DR	1115081*	4.50	2.50	DR	1110849	3°-300	12.3°-1750	0°-7.50	10.5°-12.0	.015†	NR	21		
	Cadillac.....	8, 60, 62, 75	60	NA	460	5.20	11.5	75	10.30	6500	Sol	Tik	SOG	F	9	176	.500	DR	1115082*	3.00	1.25	DR	1110852	0°-450	11.8°-2000	0°-7.50	13.8°-15.5	.019	31	21		
	Chevrolet.....	6, 1500, 2100, 2400	DR	EO	415	5.80	12.0	65	10.40	7900	Sol	Tik	Sol	F	9	168	.485	DR	1115083	4.00	1.75	DR	1112403	0°-300	13.0°-1750	0°-5.00	7.5°-9.0	.019	30	21		
	.....	8, 1500, 2100, 2400, 2934	DR	EO	415	5.80	12.0	65	10.40	7900	Sol	Tik	Sol	F	9	168	.485	DR	1115083	4.00	1.75	DR	1110847	0°-300	16.0°-1800	0°-6.00	13.8°-16.0	.019	30	21	
	.....	8, 2934	DR	EO	525	3.40	11.0	65	5.00	4300	Sol	Tik	OC	F	9	139	.350	DR	1115394	5.40	3.00	AL	1112314	0°-300	13.0°-1750	0°-5.00	15.0°-8.8	.016	44	21	
	Chrysler.....	8, C-67	AL	MCL-6121A	75	EO	410	2.00	8.0	65	5.00	4300	Tik	SpO	F	9	146	.380	AL	CAC-4001	3.90	3.00	AL	IAZ-4001E	0°-350	14.0°-2050	1.0°-5.00	11.5°-17.0	.017	34	19	
	.....	8, C-68, C-69	AL	MCL-6121A	75	EO	410	2.00	8.0	65	5.00	4300	Tik	SpO	F	9	146	.380	AL	CAC-4001	3.90	3.00	AL	IAZ-4001F	0°-350	12.0°-1730	1.0°-6.00	11.5°-17.0	.017	34	19
	.....	8, C-70	AL	MDR-6001A	75	EO	140	4.00	4.0	21	10.00	4000	Tik	SpO	F	9	146	.380	AL	CAC-4001	3.90	2.20	AL	IAZ-4001G	0°-350	12.0°-1730	1.0°-6.00	11.5°-17.0	.017	34	19
	.....	8, C-300	AL	MCL-6121A	75	EO	410	2.00	8.0	65	5.00	4300	Tik	SpO	F	9	146	.380	AL	CAC-4001	3.90	3.00	AL	IAZ-4001G	0°-350	8.0°-800	1.0°-6.00	7.0°-11.0	.017	34	19
	De Soto.....	8, S-21	AL	MCH-6113A	75	EO	410	2.00	8.0	65	5.00	4300	Tik	SC	F	9	146	.375	AL	CR-6015	5.00	2.25	AL	IAZ-4002D	0°-350	12.0°-1800	1.0°-6.00	11.5°-17.0	.017	27	19	
	.....	8, S-22	AL	MCH-6113A	75	EO	410	2.00	8.0	65	5.00	4300	Tik	SC	F	9	146	.375	AL	CR-6015	5.00	2.25	AL	IAZ-4002D	0°-350	12.0°-1800	1.0°-6.00	11.5°-17.0	.017	27	19
	Dodge.....	8, D-55-1, D-55-2	AL	MCH-6206	75	EO	500	3.00	11.0	60	5.50	4900	Tik	Ben	F	9	146	.375	AL	CR-6012C	5.00	2.25	AL	IAZ-4003G	0°-350	16.0°-1650	1.0°-6.00	4.0°-8.5	.017	34	19
	8, D-55-3	AL	MCH-6206	75	EO	500	3.00	11.0	60	5.50	4900	Tik	Ben	F	9	146	.375	AL	CR-6012C	5.00	2.25	AL	IAZ-4003F	0°-350	12.0°-1625	1.0°-6.00	7.0°-11.0	.017	34	19
	8, D-56-1	AL	MCH-6205	75	EO	500	3.00	11.0	60	5.50	4900	Tik	Ben	F	9	146	.375	AL	CR-6012C	5.00	2.25	AL	IAZ-4003F	0°-350	12.0°-1625	1.0°-6.00	7.0°-11.0	.017	34	19
	Ford.....	6	F0	FAC-11001J	120	RT	700	3.50	16.0	70	6.00	4000	Sol	Tik	Ben	R	9	146	.375	F0	8BA-12029	5.00	3.00	Hol	FDH12127A	None	None	1.0°-3	14.5°-7.2	.025	37	19
	8	F0	FAC-11001H	120	RT	700	3.50	14.3	70	6.00	5000	Sol	Tik	Ben	R	9	146	F0	8BA-12029	5.00	3.00	F-H	FEH12127A	None	None	2.0°-3	16.5°-4.6	.015	27	19
	8, 40A, 40B	F0	FAC-11001H	120	RT	700	3.50	14.3	70	6.00	5000	Sol	Tik	Ben	R	9	146	F0	8BA-12029	5.00	3.00	Hol	FEH12127A	None	None	5.5°-2.60	16.5°-32.4	.015	27	19
	Hudson.....	6, 355-40	AL	(t)	120	280	2.00	4.4	70	5.50	4300	Sol	Tik	Ben	R	9	128	.406	AL	CR-6012A	4.50	2.50	AL	IAZ-4016	0°-300	14.5°-1500	0°-5.00	7.5°-9.0	.020	39	19
	6, 355-60	AL	(u)	120	335	2.00	6.0	65	5.50	4900	Sol	Tik	Ben	R	9	134	.406	AL	CR-6012A	4.50	2.50	AL	IAZ-4008-A	0°-500	9.0°-2000	0°-13.00	4.0°-12.0	.016	39	19
	8, 355-80	AL	MCL-6132	NA	410	2.00	8.0	70	5.65	5500	Sol	Tik	Sol	F	9	182	.375	AL	CR-6001	5.00	2.30	AL	IBK-4001B	0°-300	16.0°-1750	0°-6.00	12.0°-13.0	.018	36	19
Lincoln.....	8, 73A, 73B	F0	FAC-11001H	120	RT	700	3.50	14.0	70	6.00	5500	Sol	Pbd	Ben	R	9	152	.375	F0	8BA-12029	5.00	3.00	Hol	FDL12127B	None	None	5.0°-2	25.0°-2.4	.015	27	19	
Mercury.....	8	F0	FAC-11001H	120	RT	700	3.50	14.0	70	6.00	5500	Sol	Tik	Ben	R	9	148	.375	F0	8BA-12029	5.00	3.00	Hol	FEH12127B	None	None	1.0°-2	15.5°-2.0	.015	27	19	
Nash.....	6, 55-40	DR	(a)	NA	.....	550	3.25	11.0	70	5.65	5500	(b)	(c)	Ben	R	9	122	.438	DR	1115378	5.00	2.30	DR	1110227	(e)	(f)	0°-4.00	(g)	.022	34	19
.....	6, 55-60	DR	(h)	NA	.....	570	3.15	14.0	70	5.65	5500	(b)	(c)	Ben	R	9	132	.438	DR	1115378	5.00	2.30	DR	1110227	(e)	(f)	0°-4.00	(g)	.022	34	19
.....	8, 55-80	AL	MCL-6132	NA	.....	410	2.00	8.0	70	5.65	5500	(b)	(c)	Ben	R	9	182	.375	AL	CR-6001	5.00	2.30	AL	IBK-4001B	0°-300	16.0°-1750	0°-6.00	12.0°-13.0	.018	36	19
Nash-Hudson.....	4, 541, 542	Luc	M35G-1	325	RT	880	7.50	9.3	45	12.00	8500	Nan	(c)	Ben	R	9	117	.375	Luc	Q12	2.70	9.30	Luc	DM2	0°-600	2.0°-1700	0°-6.00	12.0°-16.0	.015	30	22	
.....	6, 5510	DR	(i)	NA	.....	550	3.25	12.0	70	5.65	5500	(b)	(c)	Ben	R	9	122	.438	DR	1115393	5.00	2.30	DR	1112382	2°-600	24.0°-2800	0°-4.00	7.5°-15.0	.022	34	19
Oldsmobile.....	8, 88, 98	DR	1107623	150	EO	460	5.20	11.0	95	10.10	3500	Sol	Tik	SpO	F	9	176	.500	DR	1115082	4.50	2.00	DR	1110850	0°-850	26.0°-3450	0°-5.50	21.5°-16.0	.016	30	21	
Packard.....	8, 55-40	AL	MDD-5301	40	NA	395	6.10	14.6	75	11.00	4400	Sol	Tik	Ben	F	9	182	.375	AL	CAD-4001	.....	.....	DR	(k)	0°-300	16.0°-2100	0°-6.00	10.0°-12.5	.016	27	21
.....	8, 55-60	DR	1107625	40	NA	370	5.40	11.5	95	10.10	3500	Sol	Tik	Ben	F	9	182	.375	AL	1115084	.....	.....	DR	(l)	0°-300	16.0°-2100	0°-6.00	10.0°-12.5	.016	27	21
Plymouth.....	8, P-25	AL	MCH-6206	75	EO	500	3.00	11.0	60	5.50	4900	Sol	Tik	Ben	F	9	146	.375	AL	IAZ-4010B	5.00	2.25	AL	IAZ-4010B	0°-425	8.0°-1350	1.0°-6.00	8.0°-14.0	.020	39	19	
.....	8, P-27	AL	MCH-6206	75	EO	500	3.00	11.0	60	5.50	4900	Sol	Tik	Ben	F	9	146	.375	AL	IAZ-4010B	5.00	2.25	AL	IAZ-4010B	0°-425	8.0°-1350	1.0°-6.00	8.0°-14.0	.020	39	19	
Pontiac.....	8, 55-27, 55-28	DR	1107631*	140	RT	440	5.40	12.5	85	10.20	4200	Sol	Tik	SpO	F	9	176	(p)	DR	1115084	3.50	1.20	DR	1110828	0°-350	30.0°-3400	0°-5.00	16.0°-15.0	.016	30	21	
Studebaker.....	6, 160G	AL	MZ-4157	100	EO	560	3.20	14.0	70	5.50	4300	Sol	Tik	Ben	F	9	124	.375	AL	CR-6007	5.50	2.00	DR	IAZ-4201	0°-600	16.0°-2000	0°-4.00	20.0°-12.0	.020	33	19	
.....	8, 160G, 8H	DR	(q)	100	EO	525	3.40	12.0	65	5.70	5000	Sol	Tik	Ben	F	9	133	.375	DR	1115392	4.50	2.00	DR	IAZ-4203	0°-600	34.0°-2900	0°-5.00	18.0°-11.0	.013	31	19	
Willys.....	6, 6-226-A	AL	185	RT	335	2.00	6.0	65	5.00	4300	Sol	Tik	Ben	F	9	130	.500	AL	CR-5009	5.00	2.50	AL	IAZ-4208	0°-325	9.0°-1675	0°-10.00	5.0°-15.0	.020	39	19		

ABBREVIATIONS

- To be used in series with resistance unit 1927809.
- †—Dwell meter for setting point opening is not recommended.
 - a)—1107132 with power steering.
 - b)—1107119 with standard transmission; 1107136 with Hydramatic.
 - c)—Manual with standard transmission; 1107136 with Hydramatic.
 - d)—Manual with standard transmission; solenoid with Hydramatic.

(c) Depress clutch pedal with standard transmission; 1107119 with Hydramatic.

(d) 1112293 standard; 1110294 optional.

(e) 0-325 standard; 0-300 optional.

(f) 12.0-1400 standard; 15.0- optional.

(g) 6.3-11.5 standard; 7.0-14.0 optional.

(h) 1071050 with standard transmission; 1108295 with Hydramatic.

(i) 1071191 with standard transmission; 1107121 with Hydramatic.

(j) 20.0-1200 with IB3-4001.

(k) 20.0-1200 with IB4-4001.

(l) 17.50 with IB4-4001-A.

(m) 15.50-10.0 with IB4-4001; 12.0-13.0 with IB3-4001-A.

(n) 30.0-100 with standard transmission; 1071115 with Hydramatic.

(o) 1071115 with standard transmission; 1071116 with Hydramatic.

(r) MCH-6210 with standard transmission; MCH-6211 with Hydramatic, FDJ-12127-C1 or FDJ-12127-C2.
(s) MZ-4107 with standard transmission; MCH-6172 with Hydramatic, MCH-6109 with standard transmission; MCH-3606 Hydramatic.

AL-Electric Auto-Lite Co.
ten-Bendix.
ten-Depress accelerator pedal.

DR—Delco-Remy Div.
EO—Engine at operating temperature.
F—Front.
F-H—Ford or Holley.
Fo—Ford Motor Co.
Ho—Holley Carburetor Co.
Lel—Place shift lever in neutral and lift.
Luc—Lucas.
Man—Manual.
NA—Not available.
NR—Not recommended.

OC—Overrunning clutch.
 Pod—Push button on dash.
 Pubd—Pull button on dash.
 R—Rear.
 RR—Room temperature.
 SC—Solenoid, clutch.
 SGO—Sliding gear, overrunning clutch.
 SOC—Spiral apline, overrunning clutch.
 Sol—Solenoid.
 Tlk—Turn ignition key beyond "on" position.

IGNITION TIMING—SPARK PLUGS—CLUTCHES

PASSENGER CAR MAKE AND MODEL	IGNITION TIMING		SPARK PLUGS			CABLE		Suppression Type	CLUTCH (PEDAL OPERATED)					Torsional Dampening										
	C/s deg. @ RPM	Mark Location	Make and Model	Thread (mm)	Tightening Torque (ft. lb.)	Gap	CABLE			Type	Fluid Coupling	Semi-centrifugal	Type Pressure	Total Plate Pressure	No. of Driven Discs	Facing				Engagement Cushioning Method	Release Bearing		Torsional Dampening	
							Conductor Type	Insulation Type	Spark Plug Protector							Material	Inside Diam. (in.)	Outside Diam. (in.)	Effective Area (Sq. in.)	Thickness (in.)	Number Required	Type	Method of Lubrication	
Buick	8, 40 8, 50, 60 8, 70	5BTC 5BTC 5BTC	FDP HB HB	AC-44-5 AC-44-5 AC-44-5	14 25 14 25 14 25	.033 .033 .033	SC SC SC	Ne Ne Ne	NMC NMC NMC	Dis,Co,Gen,VR Dis,Co,Gen,VR Dis,Co,Gen,VR	DP DP DP	N N N	CoS CoS CoS	1350 1650 1350	1 1 1	Wov Wov Wov	6.0 6.5 6.0	10.0 10.5 10.5	100.6 106.8 100.5	.125 .125 .135	2 2 2	B B B	S S S	Wov Wov Wov
Cadillac	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Chevrolet	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Chrysler	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
De Soto	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Dodge	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Ford	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Hudson	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Lincoln	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Mercury	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Nash	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Pontiac	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Studebaker	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	
Willlys	8, 60, 62, 75 6, 1500, 2100, 2400 8, 1500, 2100, 2400	2L-BTC 4BTC 4BTC	CB Fly Fly	AC-44-5* AC-44-5 AC-44-5	14 23 14 23 14 23	.035 .036 .036	LC LC LC	RN RN RN	Ne P P	Dis,Co,Gen,VR HTC HTC	DP DP DP	N N N	Dia Dia Dia	1388 1388 1388	1 1 1	MA MA MA	6.0 6.0 6.0	8.5 10.0 10.0	85.2 100.5 100.5	.135 .135 .135	2 2 2	B B B	S S S	

ABBREVIATIONS

- *—Eldorado uses AC-43-5.
†—With radio only.
(a)—Borg & Beck, 125; Auburn, 115.
(b)—3BTC with standard transmission and overdrive; 6BTC with Mercromatic.
(c)—Auto-Lite A7A with single carburetor; Auto-Lite 7J with dual carburetors.
(d)—Borg & Beck, 1380; Auburn, 1412.

- Car—Carbonized thread.
CB—Crankshaft balancer.
C-B—Chevrolet or Borg & Beck.
Ch—Champion Spark Plug Co.
Co—Coil.
CP—Crankshaft pulley.
CPS—Compression springs.
CR—Carbon ring.
CS—Crown spring.
CT—Copper wire, lined.
D—Distributor.
DP—Distributor.
Etc—Enclosed tubes covered.

- F—Grease fitting.
FDP—Flywheel.
Gen—Generator.
HB—Harmonic balancer.
HBP—Harmonic balancer pulley.
HTC—High tension cables.
IL—Inland with Long driven member.
LC—Linen core impregnated with an electrical conducting material.
Lo—Lubricating oil.
MA—Molded asbestos.

- N—No or none.
NC—Neoprene covers.
NMC—Neoprene boot and sheet metal cover.
P—Plastic.
PC—Rubber cap integral with spark plug wire.
RN—Rubber with neoprene jacket.
Ru—Rubber.
SC—Stranded copper wire.
SP—Spark plugs.
Spr—Springs.
St—Steel.
TC—Top center.
TD—Torband disc.
VD—Voltage regulator.
WA—Woven asbestos.
WM—Woven molded asbestos.
WMA—Woven wire.
Y—Yes.

...uretors, 1412.
(d)—Borg & Beck, 1389; Auburn, 1412.
B1C—Before top center.
But—Buick Motor Div.
ETC—Enclosed tubes, covered.
MA—Molded asbestos.
SC—Stranded copper.
V—Yes.
W—Woven.

LIGHT BULBS—FUSES—CIRCUIT BREAKERS

PASSENGER CAR MAKE AND MODEL	LAMP BULBS (Trade Number)										FUSES AND CIRCUIT BREAKERS (Trade Number)																			
	Headlamp	Indicator	Parking Light	Tail Light	Stop Light	Direction Indicator			License Plate Light	Instrument Light	Ignition Lock Light	Dome Light	Clock Light	Courtesy Light	Trunk Compartment Light	Headlamp	Indicator	Parking Light	Tail Light	Stop Light	Direction Indicator	License Plate Light	Instrument Light	Ignition Light	Dome Light	Clock	Clock Light	Courtesy Light	Light	
						Front	Rear	Tell Tale																						
—12—	Buick.....8, 40, 50, 60, 70	4400	53	1034	1034	(a)	(b)	(a)	53	67	57	N	1004	57	N	89	25CB	(c)	(c)	(c)	SFE9	(d)	(c)	(c)	N	SFE20	AGA2	(c)	N	(e)
	Cadillac.....8, 60, 62, 75	4400	57	1034	1034	(a)	(b)	(a)	57	67	57	53	1004	57	90	89	22CB	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
	Chevrolet.....6, 8, 1500, 2100, 2400	4400	53	67	1034	(a)	1034	(a)	53	67	57	53	1004	67	89	93	13CB	(c)	(c)	(c)	(a)	(a)	(a)	(a)	(a)	(a)	(c)	(c)	(a)	(c)
	.....6, 8, 2934	51	51	1154	1154	(a)	(b)	(a)	51	63	55	51	N	55	82	N	30CB	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(a)	(c)
	Chrysler.....8, C-67, C-68	2422	55	63	1154	(a)	1129	1129	55	63	55	51	210	55	55	87	25CB	(c)	(c)	(c)	10CB	N	(a)	(a)	(c)	(d)	SFE3	(a)	N	(d)
	.....8, C-69	2422	55	1154	1154	(a)	(b)	(a)	55	63	55	51	210	55	55	87	25CB	(c)	(c)	(c)	10CB	N	(a)	(a)	(c)	(d)	SFE3	(a)	(d)	(d)
	.....8, C-70	2425	57	1034	1034	(a)	(b)	(a)	57	67	57	53	1004	57	57	93	25CB	(c)	(c)	(c)	10CB	N	(a)	(a)	(c)	(d)	SFE3	(a)	(d)	(d)
	.....8, C-300	2422	55	63	1154	(a)	1129	1129	55	63	55	51	N	55	N	87	25CB	(c)	(c)	(c)	10CB	N	(a)	(a)	(c)	(d)	SFE3	(a)	N	(d)
	De Soto.....8, S-21, S-22	2422	55	1154	1154	(a)	(b)	(a)	55	63	55	51	210	55	1130	87	25CB	(c)	(c)	(c)	10CB	N	(a)	(a)	(c)	(d)	SFE3	(a)	(d)	(d)
	Dodge.....8, D-55-1, D-55-2; 6, D-56-1	2422	55	63	1154	(a)	1154	(a)	55	63	55	51	210	55	1130	87	25CB	(c)	(c)	(c)	10CB	N	(a)	(a)	(c)	(d)	SFE3	(a)	(d)	(d)
	.....8, D-55-3	2422	55	1154	1154	(a)	(b)	(a)	55	63	55	51	210	55	1130	87	25CB	(c)	(c)	(c)	10CB	N	(a)	(a)	(c)	(d)	SFE3	(a)	(d)	(d)
	Ford.....6, 8	4030	51	1154	1154	(a)	(b)	(a)	51	63	55	55	209	55	63	81	20CB	(c)	(c)	(c)	(b)	(b)	(b)	(b)	(b)	SFE9	SFE2,3	(b)	(b)	(e)
	.....8, 40A, 40B	4030	51	1154	1154	(a)	(b)	(a)	51	63	55	55	N	55	81	N	20CB	(c)	(c)	(c)	(b)	(b)	(b)	(b)	(b)	N	(b)	(b)	(e)	(b)
	Hudson.....6, 35540	4030	51	1154	1154	(a)	(b)	(a)	51	63	51	N	81	51	(e)	N	25CB	(c)	(c)	(b)	(b)	(b)	(b)	(b)	(b)	SFE3	(b)	(b)	N	N
	.....6, 35560; 8, 35580	4030	51	1154	1154	(a)	(b)	(a)	51	63	51	N	81	(f)	(e)	N	25CB	(c)	(c)	(b)	(b)	(b)	(b)	(b)	(b)	SFE3	(b)	(b)	N	N
	Lincoln.....8, 73A	4030	51	1154	1154	(a)	(b)	(a)	51	63	55	(f)	209	(f)	63	63	20CB	(c)	(c)	(b)	(b)	(b)	(b)	(b)	(b)	SFE9	N	(b)	(e)	(b)
	.....8, 73B	4030	51	1154	1154	(a)	(b)	(a)	51	63	55	(f)	63	(f)	63	63	20CB	(c)	(c)	(b)	(b)	(b)	(b)	(b)	(b)	SFE9	N	(b)	(e)	(b)
	Mercury.....8	4030	51	1154	1154	(a)	(b)	(a)	51	63	55	55	209	55	209	63	20CB	(c)	(c)	(b)	(b)	(b)	(b)	(b)	(b)	SFE9	AGA2,3	(b)	(e)	(b)
	Nash.....6, 5540, 5560; 8, 5580	4030	51	1154	1154	(a)	(b)	(a)	51	63	51	N	81	(f)	(e)	N	30CB	(c)	(c)	(c)	20CB	(d)	(c)	(c)	(c)	(c)	N	(c)	N	N
	Nash-Hudson.....4, 541, 542	4430	1447	1016	1016	(a)	(b)	1141	432	67	1447	N	N	N	57	N	3AG30	(c)	(c)	(c)	(c)	(d)	(c)	(c)	N	N	N	N	(c)	N
	.....6, 5510	4030	51	1154	1154	(a)	(b)	(d)	51	63	55	N	81	55	N	N	AGC30	(c)	(c)	(c)	(c)	(d)	(c)	(c)	N	N	N	(c)	N	N
	Oldsmobile.....8, 88	4400	53	1034	1034	(a)	(b)	(a)	57	67	57	57	1004	57	90	89	25CB	(c)	(c)	(c)	SFE9	SFE9	(a)	(a)	SFE9	AGC25	AGA1	AGA2	AGC25	SFE9
	.....8, 98	4400	53	1034	1034	(a)	(b)	(a)	57	67	57	57	90	57	90	89	25CB	(c)	(c)	(c)	SFE9	SFE9	(a)	(a)	SFE9	AGC25	AGA1	AGA2	AGC25	SFE9
	Packard.....8, 5540, 5560, 5580	4400	57	1034	1034	(a)	57	57	57	67	57	53	1004	57	1004	89	22CB	(c)	(c)	(c)	SFE20	SFE9	(c)	(c)	(c)	(d)	AGA2	(c)	(e)	(c)
	Plymouth.....6, P-26; 8, P-27	2422	55	63	1154	(a)	1154	(a)	55	63	55	51	210	55	1130	87	25CB	(c)	(c)	(c)	10CB	N	(a)	(a)	(c)	(d)	SFE3	(a)	(d)	(d)
	Pontiac.....8, 55-27, 55-28	53	53	67	1034	(a)	1034	(a)	57	67	57	57	1004*	57	89	93	22CB	(c)	(c)	(c)	F	F	(a)	(a)	(f)	F	(f)	(d)	(d)	(d)
	Studebaker.....6, 1606; 8, 1608, 6H	4030	51	63	1154	(a)	1158	(a)	51	63	51	N	88	51	88	63	30CB	(c)	(c)	(c)	20CB	SFE14	(c)	(c)	N	(d)	SFE3	(c)	(d)	(c)
	Willys.....6, 6-226-A	51	51	63	1154	(a)	1158	(d)	51	63	55	N	87	55	81	N	30CB	(c)	(c)	(c)	(c)	SFE14	(c)	(c)	N	(c)	(c)	(c)	(c)	N

†—Hardtop, 81.
(a)—Same as tail light.
(b)—Same as parking light.
(c)—Same as headlamp.
(d)—Same as instrument light.
(e)—Same as dome light.
CB—Circuit breaker.
F—Fuse.
N—No or none.

ABBREVIATIONS
*—Custom Catalina, 90.

TRANSMISSIONS—CONVENTIONAL—WITH OVERDRIVE

PASSENGER CAR MAKE AND MODEL	TYPE		CONVENTIONAL TRANSMISSION										OVERDRIVE														
	Conventional	Conventional with O.D.	Automatic	No. of Forward Speeds	Ratios			Constant Mesh Gears in 2nd	Spur Gear Used in	Helical Gears Used in	Synchronous Meshing in 2nd and 3rd Gears	Capacity (pt.)	Lubricant			Type Recommended	Separate Filter	Capacity (pt.)	Gear Ratio (to—1)	Manual Lockout	Downshift Accelerator Control	Minimum Cut-in Speed (mph)	Lubricant				
					First	Second	Third						Reverse	Type Recommended	SAE Viscosity Number												
															Summer								Winter	Extreme Cold			
																							Summer	Winter	Extreme Cold		
Buick..... 8, 40 8, 50, 60 Std 8, 70 NA	NA NA NA NA	Opt Opt Std	3 3 NA	2.67 1.86 1.53	1.00 1.00 1.00	3.02 2.53	Y	N N AS	AS AS	Y	Y	1½ 2½	MP MP	90 90 90	90 90 90	NA NA NA											
Cadillac..... 8, 60, 62, 75	NA	Std	NA			2.94	Y	N	AS		Y	2	MO	90		NA				Y	Y	31	.700	1	MO	90	80
Chevrolet..... 6, 8, 1500, 2100, 2400 Std 6, 8, 2934	Opt NA NA	Opt Std	3 NA	2.94	1.68	1.00	Y	N	AS		Y	2	MO	90	80	P				Y	Y		.700		MO	90	80
Chrysler..... 8, C-67 Std 8, C-68, C-69, C-70, C-300 NA	NA NA NA	Opt Std	3 NA	2.57 1.83	1.00 1.00	3.48	Y	N	AS		Y	2½	EO	10W	10W	NA NA											
De Soto..... 8, S-21, S-22	Std	Opt	3	2.57	1.83	1.00	Y	N	AS		Y	2½	EO	10W	10W	P		N	¾	Y	Y	28	.700	¾	EO	10W	10W
Dodge..... 8, D-55-1, D-55-2, D-55-3 Std 6, D-56-1 Std	Opt Opt Opt	Opt Opt Opt	3 3 3	2.57 1.83 1.83	1.00 1.00 1.00	3.48 3.48	Y	N N AS	AS AS	Y	Y	2½ 2½	EO EO	10W 10W	10W 10W	P P	N N	N	¾ ¾	Y Y	Y	26 25	.700 .700	¾ ¾	EO EO	10W 10W	10W
Ford..... 6 Std 8 Std 8, 40A, 40B	Opt Opt Opt Opt	Opt Opt Opt	3 3 3	2.78 1.62 1.63 2.32	1.00 1.00 1.00	3.36 3.13 2.82	Y	N N AS	AS AS	Y	Y	3	EP EP MP	80 80 80	80 80 75	P P P	N N N	N	1½ 1½ 1½	Y Y Y	Y	27 27 28	.700 .700 .700	1½ 1½ 1½	EP EP MP	80 80 80	80 80 75
Hudson..... 6, 35540 Std 6, 35560 Std 8, 35560	Opt Opt NA NA	Opt Opt Std	3 3 NA	2.61 1.63 1.55	1.00 1.00	3.54 3.49	Y	N N	1.2R 1.2R	Y	Y	2½ 2½	MO MO	90 90	80 80	P P	N N	N	1¼ 1¼	Y Y	Y	25 25	.700 .700	1¼ 1¼	MO MO	90 90	80 80
Lincoln..... 8, 73A, 73B	NA	Std	NA													NA											
Mercury..... 8	Std	Opt	3	2.49	1.59	1.00	Y	N	AS		Y	3½	EP	80	80	P		N	1½	Y	Y	28	.720	1½	EP	80	80
Nash..... 6, 5540 Std 6, 5560 Std 8, 5560	Std Std Std NA	Opt Opt Opt Std	3 3 3 NA	2.61 1.63 1.55	1.00 1.00	3.54 3.49	Y	N N AS	1.2R 1.2R	Y	Y	2½ 2½	MO MO	90 90	80 80	P P	N N	N	1¼ 1¼	Y Y	Y	25 25	.700 .700	1¼ 1¼	MO MO	90 90	80 80
Nash-Hudson..... 4, 541, 542 Std 8, 5510	NA NA Std	NA Opt	3 3	2.84 2.61	1.49 1.63	1.00 1.00	Y	R N	1.2 AS	Y	Y	5½ 1½	MO MO	40 90	20 80	NA P		N	1¼	Y	Y	25	.700	1¼	MO	90	80
Oldsmobile..... 8, 88, 98	Std	NA	Opt	3	2.39	1.53	Y	N	AS		Y	2½	EP	80	80	NA											
Packard..... 8, 5540, 5560 Std 8, 5560	Std NA	Opt Std	3 NA	2.49	1.59	1.00	Y	N	1.2R	Y	Y	3½*	EP	90	90	P		Y	1¼	Y	Y	22	.722	1¼	EP	90	80
Plymouth..... 6, P-26 Std 8, P-27	Std Std	Opt Opt	3 3	2.57 1.83	1.00 1.00	3.48 3.48	Y	N N	AS AS	Y	Y	2½ 2½	GL GL	80 80	80 80	P P		N	¾ ¾	Y Y	Y	25 26	.700 .700	¾ ¾	GL GL	80 80	80 80
Pontiac..... 8, 55-27, 55-28	Std	NA	Opt	3	2.39	1.49	Y	N	AS		Y	1½	EP	80-90	80-90	NA											
Studebaker..... 6, 1606 Std 8, 1606, 6H	Std Std	Opt Opt	3 3	2.61 2.57	1.63 1.55	1.00 1.00	Y	N N	AS AS	Y	Y	1½ 2½	MO MO	90 90	90 90	P P		N	1½ 1	Y Y	Y	25 25	.700 .700	1½ 1	MO MO	90 90	90 90
Willys..... 6, 6-226-A	Std	Opt	3	2.57	1.55	1.00	Y	N	AS		Y	2½	GL	80	80	P		Y	1	Y	Y	24	.700	1	GL	90	80

ABBREVIATIONS			GL—Gear Lubricant			N—No or none			P—Planetary.			Std—Standard.		
AS—All speeds	EO—Engine oil	EP—Multi-extreme pressure.	GL—Gear Lubricant	MO—Motor oil	MP—Multi-Purpose.	NA—Not available.	Opt—Optional.	R—Reverse.	Y—Yes.					

Std.—Standard.
Y—Yes.

P—Planetary.
R—Reverse.

N—No or none.
NA—Not available.
Opt—Optional.

GL—Gear lubricant.
MO—Motor oil.
MP—Multi-Purpose gear lubricant.

AS—All speeds.
EO—Engine oil.
EP—Mild extreme pressure.

ABBREVIATIONS
• 25% with overdrive.

AS—All speeds.
ED—Engine oil.
MD—Multi-Purpose.
NT—Neutral.
P—Part.
R—Reverse.
V—Yes.
Y—Yes.

GL—Gear Lubricant.
MA—Motor oil.
MD—Multi-Purpose.
NT—Neutral.
P—Part.
R—Reverse.
V—Yes.
Y—Yes.

AS—All speeds.
ED—Engine oil.
MD—Multi-Purpose.
NT—Neutral.
P—Part.
R—Reverse.
V—Yes.
Y—Yes.

AUTOMATIC TRANSMISSIONS

PASSENGER CARS MAKE AND MODEL	TRADE NAME	Type	Manual Selector Positions (left to right)	GEAR RATIOS				TORQUE CONVERTER		LUBRICATION													
				1st or Low Range	2nd or Drive Range	3rd or Inter- mediate Range	4th Speed	Reverse	Shifting Within Drive Range by Accelerator and Governor	Governor-Forced Shift	Downshift Up to (mph)	TORQUE CONVERTER			LUBRICATION								
												Number of Elements	Max. Ratio at Stall at Engine RPM	Provided	Speed Range (mph)	Releases at (mph)	Mechanical Lockup	Type of Cooling	Anti-Creep Device	Capacity—Refill (qt.)	Type Recommended	Grade (S.A.E. No.)	
																						Summer	Winter	Extreme Cold
Buick..... 8, 40 8, 50, 60, 70	Dynaflo Dynaflo	TCG TCG	P.N.D.L.R P.N.D.L.R	1.82* 1.82*	1.00* 1.00*	No No	No No	1.82* 1.82*	Y Y	No No	40 40	4 4	(a) (b)	No No	No No	WC WC	No No	10 10	+	+			
Cadillac..... 8, 60, 62, 75	Hydramatic	FCG	N.Dr.Dr2.Lo.R	4.08	2.63	1.55	1.00	4.30	Y	Y	50 48	3 3	2.10 2.10	No No	No No	WC No	No No	11 4	+	+			
Chevrolet..... 6, 8, 1500, 2100, 2400 6, 8, 2934	Powerglide Powerglide	TCG TCG	P.N.D.L.R P.N.D.L.R	1.82* 1.82*	1.00* 1.00*	1.00* 1.00*	No No	1.82* 1.82*	Y Y	Y Y	55 55	3 3	2.60 2.60	No No	No No	AC WC	No No	10 11	+	+			
Chrysler..... 8, C-67 8, C-68, C-69, C-70, C-300	Powerflite Powerflite	TCG TCG	R.N.D.L R.N.D.L	1.72* 1.72*	1.00* 1.00*	1.00* 1.00*	No No	2.39* 2.39*	No Y	Y Y	55 55	3 3	2.60 2.60	No No	No No	WC WC	No No	10 11	+	+			
De Soto..... 8, S-21, S-22	Powerflite	TCG	R.N.D.L	1.72*	1.00*	1.00*	No	2.39*	No	Y	55	3	2.60	No	No	AC	No	11	+	+			
Dodge..... 8, D-55-1, D-55-2 8, D-55-3 8, D-55-4, D-55-5	Powerflite Powerflite Powerflite	TCG TCG TCG	R.N.D.L R.N.D.L R.N.D.L	1.72* 1.72* 1.72*	1.00* 1.00* 1.00*	1.00* 1.00* 1.00*	No No No	2.39* 2.39* 2.39*	No No No	Y Y Y	55 55 55	3 3 3	2.60-1450 2.60-1500 2.60-1330	No No No	No No No	AC AC AC	No No No	10 10 10	+	+			
Ford..... 6 8 8, 40A, 40B	Fordomatic Fordomatic Fordomatic	TCG TCG TCG	P.R.N.D.R.L.D P.R.N.D.R.L.O P.R.N.D.R.L.O	2.40* 2.40* 2.40*	1.47* 1.47* 1.47*	1.00* 1.00* 1.00*	No No No	2.00* 2.00* 2.00*	Y Y Y	Y Y Y	62 64 65	3 3 3	2.10-1480 2.10-1550 2.10-1650	No No No	No No No	AC AC AC	No No No	9 1/4 9 1/4 10 1/4	+	+			
Hudson..... 6, 35540 6, 35560 8, 35580	Hydramatic Hydramatic Ultramatic	FCG FCG TCG	N.D2.D1.L.R N.D2.D1.L.R P.N.D2.D1.L.R	3.82 3.82 1.82	2.63 2.63 1.82	1.45 1.45 1.00	1.00 1.00 1.00	4.30 4.30 1.63	Y Y Y	Y Y No	58 58 55	No No 4	2.90-1650 2.90-1650	No No Y	No No Y	WC WC	No No No	8 1/2 11 11	+	+			
Lincoln..... 8, 73A, 73B	Turbo Drive	TCG	P.R.N.D.R.L.O	2.40*	1.47*	1.00*	No	2.00*	Y	Y	71	3	2.10-1625	No	No	AC	No	10	+	+			
Mercury..... 8	Mercomatic	TCG	P.R.N.D.R.L.O	2.40*	1.47*	1.00*	No	2.00*	Y	Y	69	3	2.10-1650	No	No	AC	No	10 1/4	+	+			
Nash..... 6, 5540 6, 5560 8, 5580	Hydramatic Hydramatic Ultramatic	FCG FCG TCG	N.Dr1.Dr2.Lo.R N.Dr1.Dr2.Lo.R P.N.D2.D1.L.R	3.82 3.82 1.82	2.63 2.63 1.82	1.45 1.45 1.00	1.00 1.00 1.00	4.30 4.30 1.63	Y Y Y	Y Y No	58 58 55	No No 4	2.90-1650 2.90-1650	No No Y	No No Y	WC WC	No No No	8 1/2 11 11	+	+			
Nash-Hudson..... 4, 541, 542 6, 5510	Not Available Hydramatic	FCG FCG	N.Dr1.Dr2.Lo.R N.Dr.S.Lo.R	3.82 3.82	2.63 2.63	1.45 1.45	1.00 1.00	4.30 4.30	Y Y	Y Y	58 65	No No	.....	No	.....	.....	.....	8 1/2 10	+	+
Oldsmobile..... 8, 88, 98	Hydramatic	FCG	N.Dr.S.Lo.R	3.82	2.63	1.45	1.00	4.30	Y	Y	65	No	.....	.....	.....	.....	.....	10	+	+
Packard..... 8, 5540, 5560, 5580	Ultramatic	TCG	P.N.D2.D.L.R	1.82*	1.82*	1.00*	No	1.63*	Y	No	55	4	2.90-1650	Y	.....	WC	No	11	+	+		
Plymouth..... 6, P-26; 8, P-27	Powerflite	TCG	R.N.D.L	1.72*	1.72*	1.00*	No	2.39*	No	Y	55	3	2.60	No	No	AC	No	10	+	+			
Pontiac..... 8, 55-27, 55-28	Hydramatic	FCG	N.Dr1.Dr2.Lo.R	4.10	2.63	1.55	1.00	4.62	Y	Y	60	No	.....	.....	.....	.....	.....	9 1/2	+	+
Studebaker..... 6, 16G6 8, 16G8, 6H	Automatic Drive Automatic Drive	TCG TCG	P.N.D.L.R P.N.D.L.R	2.31* 2.31*	2.31* 2.31*	1.43* 1.43*	1.00 1.00	2.00* 2.00*	Y Y	Y Y	60 62	3 3	2.15-1600 2.15-1650	Y Y	Y Y	AC AC	Y Y	9 1/2 9 1/2	+	+			
Willys..... 6, 6-226-A	Hydramatic	FCG	N.Dr1.Dr2.Lo.R	3.82	2.63	1.45	1.00	4.30	Y	Y	55	No	.....	.....	.....	.....	.....	11	+	+

ABBREVIATIONS
*—Plus torque converter ratio.
†—Automatic transmission fluid type
"A".
▲—And up.
(a)—2.10-1300 with stator at low angle;
2.50-2500 with stator at high angle.
(b)—2.10-1500 with stator at low angle;
2.50-2500 with stator at high angle.
(c)—Fourth to third, 70; third to second, 20.
AC—Air cooled.
D—Drive.
DR—Drive.
FCG—Fluid coupling with gears.
L—Low.
Lo—Low.
No—No.
P—Part.
R—Reverse.
S—Super performance.
TCG—Torque converter with gears.
WC—Water cooled.
Y—Yes.

Chilton's MOTOR AGE, JULY, 1955

BRITISH CARS

MAKE AND MODEL	ENGINE										GENERAL DATA										REAR AXLE			Shipping Weight (Lb.)		
	Number of Cylinders, Bore and Stroke (In.)	Maximum Brake Hp. at Specified R.P.M.	Piston Displacement (Cu In.)	Compression Ratio (To -1)	Cylinder Arrangement	Valve Location	Piston Material	Camshaft Drive	Wheelbase (In.)	TREAD		OVERALL DIMENSIONS (In.)		Tires (In.)	Oil Pressure to —	Carburetors—No. Used and Type	Cooling System	Shifting Method	No. of Forward Speeds	Final Drive Type	Gear Ratio (To -1)	Torque Taken By	Independent Suspension	Service Brakes		
										Front (In.)	Rear (In.)	Length Including Bumpers and Bumper Guards	Width													
A.C. Ace	6-2.56x3.94	85-4500	121.5	7.50	.....	IH	AA	Ch	90.0	50.0	50.0	149.0	59.5	35.0	.....	3-SU	.....	HS	4	Hy	3.64	.....	FR	H	1500	
..... 2 Litre	6-2.56x3.94	76-4500	121.5	6.75	.....	IH	.....	Ch	117.0	55.0	56.0	184.0	67.0	61.0	.....	3-SU	.....	HS	4	Hy	4.55	.....	N	H	2600	
Allard. J2X	8-3.19x3.75	140-4000	238.5	7.00	V	IH	AA	HG	100.0	56.0	52.0	148.0	63.0	34.0	6.00/16	2-Do	TP	HS	3	SB	3.27	TT	Fr	H	2016	
..... 21C	4-3.12x3.00	47-4400	92.0	6.80	IL	IH	AA	HG	100.0	51.0	50.0	156.0	58.0	51.0	6.40/13	1-DD	TP	HS	3	SB	4.40	TA	Fr	H	1848	
..... 21Z	6-3.12x3.00	71-4200	138.0	7.50	IL	IH	AA	HG	100.0	51.0	50.0	156.0	58.0	51.0	6.40/13	1-DD	TP	HS	3	SB	4.40	TA	Fr	H	1932	
..... K3	8-3.06x3.75	95-3800	223.0	7.00	V	IH	AA	HG	100.0	56.0	58.0	177.0	66.0	54.0	6.25/16	1-DD	TP	HS	3	SB	3.50	TT	Fr	H	2600	
..... P2	8-3.06x3.75	85-3500	223.0	6.12	V	L	AA	HG	112.0	56.0	58.0	192.0	71.0	60.0	6.25/16	1-DD	TP	HS	3	SB	3.78	TT	Fr	H	3250	
Alvis. TC21-100 (Saloon)	6-3.30x3.54	104-4000	182.6	8.00	IL	IH	AA	Ch	111.5	54.6	54.1	182.1	66.0	62.5	6.00/15	2-SH	Pu	HS	4	Hy	3.77	Sp	Fr	H	3192	
..... TC21-100 (Coupe)	6-3.30x3.54	104-4000	182.6	8.00	IL	IH	AA	Ch	111.5	54.6	54.1	182.1	66.0	62.5	6.00/15	2-SH	Pu	HS	4	Hy	3.77	Sp	Fr	H	3161	
Armstrong-Siddeley 30HP	6-3.54x3.54	125-4700	209.6	7.00	IL	IH	AA	Ch	114.0	56.6	57.5	193.0	72.0	63.0	6.70/16	1-Do	Pu	(1)	4	Hy	4.09	Sp	Fr	H	3472	
..... 30HP	6-3.54x3.54	150-5000	209.6	7.00	IL	IH	AA	Ch	114.0	56.6	57.5	193.0	72.0	63.0	6.70/16	2-Do*	Pu	(1)	4	Hy	4.09	Sp	Fr	H	3472	
Aston-Martin. DB2-4	6-3.07x3.54	125-5000	157.4	8.16	IL	IH	AA	Ch	99.0	54.0	54.0	169.3	65.0	53.5	6.00/16	abc	2-Ho	Pu	HS	4	Hy	3.73	Sp	Fr	H	2632
..... DB2-4	6-3.27x3.54	140-5000	178.2	8.20	IL	IH	AA	Ch	99.0	54.0	54.0	169.3	65.0	53.5	6.00/16	abc	2-Ho	Pu	HS	4	Hy	3.73	Sp	Fr	H	2632
Austin. A30-7	4-2.28x3.00	28-4800	48.8	7.20	IL	IH	AA	Ch	79.5	45.3	44.8	136.4	55.1	58.3	5.20/13	abce	1-Do	Pu	HS	4	Hy	5.13	Sp	Fr	HM	1325
..... A135	6-3.44x4.38	.....	244.0	6.80	IL	IH	AA	Ch	119.5	58.0	60.0	192.5	72.5	66.0	6.50/16	abce	1-Do	Pu	HS	4	Hy	4.09	Sp	Fr	H	3900
..... A90-6	6-3.13x3.50	85-4000	122.0	7.30	IL	IH	AA	Ch	103.8	51.5	51.3	170.3	64.0	63.8	6.40/15	abce	1-SD	Pu	HS	4	Hy	3.91	Sp	Fr	H	2600
..... A40	4-2.88x3.50	42-4500	73.2	7.20	IL	IH	AA	Ch	99.3	48.5	49.0	162.3	61.5	61.5	5.60/15	abce	1-Do	Pu	HS	4	Hy	4.88	Sp	Fr	H	2008
..... A50	4-2.88x3.50	50-4400	73.2	7.20	IL	IH	AA	Ch	99.3	48.5	49.0	162.3	61.5	61.5	5.60/15	abce	1-Do	Pu	HS	4	Hy	4.88	Sp	Fr	H	2008
Austin-Healey. 100	4-3.44x4.38	90-4000	182.2	7.50	IL	IH	AA	Ch	90.0	49.0	50.8	151.5	60.5	49.0	5.90/15	abce	2-St	Pu	HS	4	SB	4.13	Sp	Fr	H	2176
..... 100S	4-3.44x4.38	132-4700	182.2	8.30	IL	IH	AA	Ch	90.0	49.0	50.8	148.0	60.5	42.0	5.50/15	abce	2-St	Pu	HS	4	SB	2.92	Sp	Fr	H	1888
Bentley. Saloon	6-3.62x4.50	.....	279.0	6.75	IL	F	AA	HG	120.0	56.5	58.5	199.5	70.0	66.0	6.50/16	abce	2-SH	Pu	Au	4	Hy	3.73	Sp	Fr	HM	4170
..... Continental	6-3.74x4.50	.....	.....	7.25	IL	F	AA	HG	120.0	56.5	58.5	199.5	70.0	66.0	6.50/16	abce	2-SH	Pu	Au	4	Hy	3.08	Sp	Fr	HM	3300
Bristol. 403	6-2.60x3.78	100-5000	120.2	7.50	IL	IH	AA	Ch	114.0	51.7	54.0	191.7	67.0	60.0	5.75/16	abce	3-Do	Pu	HS	4	SB	3.90	RA	Fr	H	2700
Citroen. 2CV-A	2-2.44x2.44	9-3800	22.9	6.20	HO	IH	AA	SG	93.5	49.6	49.6	148.8	58.3	63.0	4.90/15	abce	1-SD	AC	HS	4	SB*	3.87*	Sp*	FR	H	1120
..... Light 15	4-2.99x3.94	56-4250	116.6	6.50	IL	IH	AA	Ch	114.5	54.0	53.3	175.0	65.3	60.0	6.50/15	abce	1-SD	Pu	HS	3	SB*	3.46*	Sp*	FR	H	2380
..... Big 15	4-2.99x3.94	56-4250	116.6	6.50	IL	IH	AA	Ch	121.5	58.5	57.8	186.0	70.0	61.0	6.50/15	abce	1-SD	Pu	HS	3	SB*	3.46*	Sp*	FR	H	2540
..... 6 Cylinder	6-2.99x3.94	76-3800	174.8	6.50	IL	IH	AA	Ch	121.5	58.5	58.5	191.0	70.0	61.0	7.25/15	abce	1-DD	Pu	HS	3	SB*	3.87*	Sp*	FR	H	2940
..... 2CV-AZ	2-2.60x2.44	12-3800	25.9	6.20	HO	IH	AA	SG	93.5	49.6	49.6	148.8	58.3	63.0	4.90/15	abce	1-Do	AC	HS	4	SB	3.87	Sp	.....	H	.....
Daimler. Regency	6-3.25x4.25	107-4000	211.5	6.70	IL	IH	AA	Ch	114.0	56.0	57.0	193.0	71.0	62.5	6.50/16	abce	2-Ho	Pu	Pr	4	Hy	4.30	Sp	Fr	HM	4032
..... Sportsman Saloon	6-3.25x4.25	127-4000	211.5	7.50	IL	IH	AA	Ch	114.0	56.0	57.0	194.1	70.5	60.5	6.50/16	abce	2-Ho	Pu	Pr	4	Hy	4.89	Sp	Fr	HM	4144
..... Conquest	6-3.00x3.50	75-4000	148.4	7.00	IL	IH	AA	Ch	104.0	52.0	52.0	178.0	65.0	62.0	6.70/15	abce	1-Do	Pu	Pr	4	Hy	4.56	Sp	Fr	HM	3080
..... Conquest Roadster	6-3.00x3.50	100-4400	148.4	7.75	IL	IH	AA	Ch	104.0	52.0	52.0	178.0	64.0	55.0	5.00/15	abce	2-Ho	Pu	Pr	4	Hy	3.73	Sp	Fr	HM	2680
..... Regina	6-3.75x4.25	150-4000	282.0	6.50	IL	IH	AA	Ch	130.0	60.0	63.0	217.0	74.0	72.0	7.50/16	abce	2-Ho	Pu	Pr	4	Hy	4.27	Sp	.....	H	5120
Dellow. MK11	4-2.50x3.64	31-4000	71.4	7.00	IL	L	AA	Ch	83.0	45.0	45.0	138.0	53.0	51.0	5.50/16	abce	1-Do	Pu	HS	3	SB	5.50	TT	N	M	1288
..... MKV	4-2.50x3.64	37-4400	71.6	7.00	IL	L	AA	Ch	84.0	45.0	45.0	130.0	54.0	47.0	5.50/16	abce	(2)	Pu	HS	3	SB	4.70	TT	N	M	1064
Ford. Zephyr Six	6-3.12x3.00	68-4200	138.0	6.80	IL	IH	AS	Ch	104.0	50.0	49.0	171.9	63.9	60.8	6.40/13	abce	1-SD	Pu	HS	3	Hy	4.44	Sp	Fr	H	2460
..... Consul	4-3.12x3.00	47-4400	92.0	6.80	IL	IH	AS	Ch	100.0	50.0	49.0	166.7	64.0	60.8	5.90/13	abce	1-SD	Pu	HS	3	Hy	4.56	Sp	Fr	H	2255
..... New Anglia	4-2.50x3.64	36-4500	71.6	7.00	IL	L	AA	Ch	87.0	48.0	47.5	151.3	60.0	58.8	5.20/13	abce	1-SD	Pu	HS	3	SB	4.43	Sp	Fr	H	1623
..... New Prefect	4-2.50x3.64	36-4500	71.6	7.00	IL	L	AA	Ch	87.0	48.0	47.5	151.3	60.0	58.8	5.20/13	abce	1-SD	Pu	HS	3	SB	4.43	Sp	Fr	H	1721
..... Popular	4-2.50x3.64	30-4000	71.6	6.16	IL	L	AA	Ch	90.0	45.0	45.0	152.3	56.5	64.3	4.50/17	abce	1-SD	TS	HS	3	SB	5.50	TT	N	M	1597
..... Zephyr Zodiac	6-3.13x3.00	71-4200	138.0	7.50	IL	IH	AS	Ch	104.0	50.0	49.0	171.9	63.9	60.8	6.40/13	abce	1-SD	Pu	HS	3	Hy	4.44	Sp	Fr	H	2522
Frazer-Nash	6-2.80x3.78	140-5750	120.2	9.00	IL	IH	AA	Ch	96.0	50.0	52.0	150.0	61.5	36.0	5.50/16	abce	3-Do	Pu	HS	4	SB	3.60	RA	Fr	H	1680
..... Targa Florida Gran Sport	6-2.80x3.78	100-5000	120.7	7.50	IL	IH	AA	Ch	96.0	50.0	52.0	150.0	61.5	36.0	5.50/16	abce	3-Do	Pu	HS	4	SB	3.60	RA	Fr	H	1680
..... Targa Florida Turismo	6-2.80x3.78	140-5750	120.2	9.00	IL	IH	AA	Ch	96.0	50.0	54.0	141.0	63.5	36.0	5.50/16	abce	3-Do	Pu	HS	4	SB	3.60	RA	FR	H	1400
..... Competition Mark II	6-2.80x3.78	140-5750	120.2	9.00	IL	IH	AA	Ch	96.0	50.0	52.0	150.0	61.5	36.0	5.50/16	abce	3-Do	Pu	HS	4	SB	3.60	RA	Fr	H	1764
..... 1600 cc	6-2.80x3.78	140-5750	120.2	9.00	IL	IH	AA	Ch	96.0	50.0	52.0	150.0	61.5	36.0	5.50/16	abce	3-Do	Pu	HS	4	SB	3.60	RA	Fr	H	1680
..... Fixed Head Coupe	6-2.80x3.78	140-5750	120.2	9.00	IL	IH	AA	Ch	96.0	50.0	52.0	150.0	61.5	36.0	5.50/16	abce	3-Do	Pu	HS	4	SB	3.60	RA	Fr	H	1680
..... Sebring	6-2.80x3.78	140-5750	120.2	9.00	IL	IH	AA	Ch	96.0	50.0	52.0	150.0	61.5	36.0	5.50/16	abce	3-Do	Pu	HS	4	SB	3.60	RA	Fr	H	1680
Hillman	4-2.56x3.74	42-4200	77.2	6.63	IL	L	AA	Ch	93.0	48.6	48.5	162.5	62.5	61.0	5.60/15	abce	1-Do	Pu	HS	4	SB	5.22	Sp	Fr	H	2053
..... Minx Special Saloon	4-2.56x3.74	35-4100	77.2	6.63	IL	L	AA	Ch	93.0	48.6	48.5	162.5	62.5	61.0	5.60/15	abce	1-Do	Pu	HS	4	SB	4.78	Sp	Fr	H	1904
..... Husky	4-3.00x3.00	47-4400	85.																							

OTHER FOREIGN CARS

MAKE AND MODEL	ENGINE							GENERAL DATA											REAR AXLE						
	Number of Cylinders, Bore and Stroke (in.)	Maximum Brake Hp. at Specified R.P.M.	Piston Displacement (Cu In.)	Compression Ratio (To 1)	Cylinder Arrangement	Valve Location	Piston Material	Camshaft Drive	TREAD		OVERALL DIMENSIONS (in.)			Oil Pressure to —	Carburetors—No. Used and Type	Cooling System	Shifting Method	No. of Forward Speeds	Final Drive Type	Gear Ratio (To 1)	Torque Taken By	Independent Suspension	Service Brakes	Shipping Weight (Lb.)	
									Wheelbase (in.)	Front (in.)	Rear (in.)	Length Including Bumper and Guards	Width	Height—Road to Roof, No Load											
BRITISH—continued																									
Lanchester..... Sprite	4-3.00x3.50	60-4200	88.9	7.00	IL	IH	AA	Ch	100.0	51.0	51.0	170.0	64.0	60.0	5.60/15	abce	1-Do	Pu	Au	4 Hy	4.44	Sp	Fr	H	2290
Lea-Francis..... 18 HP	4-3.35x4.33	95-4000	163.0	7.20	IL	IH	AA	Ch	111.0	52.1	52.4	184.0	64.0	60.5	6.00/16	abce	1-St	Pu	HS	4 Hy	3.91	Sp	Fr	H	3024
..... 2½ Litre	4-3.35x4.33	125-5000	163.0	8.00	IL	IH	AA	Ch	99.0	52.1	52.4	168.0	62.0	62.0	6.00/16	abce	2-St	Pu	HS	4 Hy	3.64	Sp	Fr	H	2576
..... 14 HP	4-2.95x3.94	70-4700	108.0	7.25	IL	IH	AA	Ch	111.0	52.1	52.4	184.0	64.0	60.5	6.00/16	abce	1-St	Pu	HS	4 Hy	4.88	Sp	Fr	H	2828
..... 14 HP Estate Car	4-2.95x3.94	65-4700	108.0	7.25	IL	IH	AA	Ch	111.0	52.1	52.4	184.0	64.0	64.0	6.00/16	abce	1-St	Pu	HS	4 Hy	4.88	Sp	Fr	H	2828
MG..... TF	4-2.83x3.54	63-5000	89.4	8.40	IL	IH	AA	Ch	94.0	47.4	50.0	147.0	59.8	52.5	5.50/15	abce	2-Ho	Pu	HS	4 Hy	4.88	Sp	Fr	H	1904
..... Magnette	4-2.88x3.50	60-4600	90.8	7.15	IL	IH	AA	Ch	102.0	51.0	51.0	169.0	63.0	58.0	5.50/15	abce	2-SD	Pu	HS	4 Hy	4.88	Sp	Fr	H	2464
Morgan..... Plus 4	4-3.35x3.82	68-4200	127.6	6.70	IL	IH	AA	Ch	96.0	47.0	47.0	144.0	56.0	52.5	5.25/16	abce	1-Do	Pu	HS	4 Hy	4.10	Sp	Fr	H	1700
..... Plus 4 TR	4-3.27x3.62	90-4800	121.5	8.50	IL	IH	AA	Ch	96.0	47.0	47.0	144.0	56.0	52.5	5.25/16	abce	1-Do	Pu	HS	4 Hy	3.72	Sp	Fr	H	1700
Morris..... Oxford Series II	4-2.88x3.50	50-4200	90.9	7.43	IL	IH	AA	Ch	97.0	53.5	53.0	171.0	65.0	63.0	5.50/15	abce	1-SD	Pu	HS	4 Hy	4.88	Sp	Fr	H	2340
..... Minor Series II	4-2.88x3.00	30-4800	48.8	7.20	IL	IH	AT	Ch	88.0	50.6	50.3	148.0	61.1	60.0	5.00/14	abce	1-SH	Pu	HS	4 Hy	5.38	Sp	Fr	H	1722
..... Cowley	4-2.58x3.50	42-4500	73.2	7.59	IL	IH	AA	Ch	97.0	53.5	53.0	171.0	65.0	63.0	5.50/15	abce	1-Do	Pu	HS	4 Hy	5.13	Sp	Fr	H	2296
Riley..... 1½ Litre	4-2.72x3.94	55-4500	91.3	6.80	IL	IH	AA	Ch	112.5	52.2	52.2	179.0	63.5	59.0	5.75/16	abce	1-Ho	Pu	HS	4 SB	4.89	Sp	Fr	H	2688
..... Pathfinder	4-3.17x4.73	110-4500	149.0	7.20	IL	IH	AA	Ch	113.5	54.0	54.5	183.0	67.0	60.0	6.00/16	abce	2-SD	Pu	HS	4 Hy	4.10	TA	Fr	H	3412
Rolls-Royce..... Silver Dawn	6-3.62x4.50	279.0	6.75	IL	F	AA	HG	120.0	56.5	58.5	203.5	70.0	65.7	6.50/16	abce	1-DD	Pu	HS	4 Hy	3.73	Sp	Fr	HM	4130	
..... Silver Wraith	6-3.62x4.50	279.0	6.40	IL	F	AA	HG	127.0	58.5	60.5	208.0	73.0	67.5	7.50/16	abce	1-SD	Pu	Au	4 Hy	4.25	Sp	Fr	HM	4130	
..... Silver Wraith	6-3.62x4.50	279.0	6.40	IL	F	AA	HG	133.0	58.5	60.5	208.0	73.0	67.5	7.50/16	abce	1-SD	Pu	Au	4 Hy	4.25	Sp	Fr	HM	4130	
Rover..... 75	6-2.88x3.50	80-4500	136.0	6.95	IL	F	AA	Ch	111.0	52.0	51.5	178.2	65.6	63.7	6.00/15	abce	1-SH	Pu	HS	4 SB	4.30	Sp	Fr	H	3149
..... 60	4-3.06x4.13	60-4000	121.8	6.70	IL	F	AA	Ch	111.0	52.0	51.5	178.2	65.6	63.7	6.00/15	abce	1-SH	Pu	HS	4 SB	4.30	Sp	Fr	H	3002
..... 90	6-2.88x4.13	80-4500	160.9	6.73	IL	F	AA	Ch	111.0	52.0	51.5	178.2	65.6	63.7	6.00/15	abce	1-SH	Pu	HS	4 SB	4.30	Sp	Fr	H	3149
Singer..... SM Roadster	4-2.88x3.52	48-4200	91.3	7.00	IL	IH	AA	Ch	91.0	46.7	46.7	151.5	58.0	58.5	5.00/16	abce	1-SD	Pu	HS	4 SB	4.88	Sp	Fr	HM	1800
..... SM 1500	4-2.88x3.52	48-4200	91.3	7.00	IL	IH	AA	Ch	107.5	50.5	51.0	176.5	63.0	64.0	5.50/16	abce	1-SD	Pu	HS	4 Hy	5.12	Sp	Fr	H	2520
..... SM Roadster (Twin)	4-2.88x3.52	58-4600	91.3	7.47	IL	IH	AA	Ch	91.0	46.7	46.7	151.5	58.0	58.5	5.00/16	abce	2-SD	Pu	HS	4 Hy	4.44	Sp	Fr	HM	1800
..... SM 1500 (Twin)	4-2.88x3.52	58-4600	91.3	7.47	IL	IH	AA	Ch	107.5	50.5	51.0	176.5	63.0	64.0	5.50/16	abce	2-SD	Pu	HS	4 Hy	5.12	Sp	Fr	H	2520
..... Hunter Saloon	4-2.87x3.52	48-4200	91.3	7.10	IL	IH	AA	Ch	107.5	50.5	51.0	177.0	63.0	64.0	5.50/16	abce	1-Do	Pu	HS	4 Hy	5.13	Sp	Fr	M	2548
..... Hunter Saloon (Twin)	4-2.87x3.52	58-4600	91.3	7.47	IL	IH	AA	Ch	107.5	50.5	51.0	177.0	63.0	64.0	5.50/16	abce	2-Do	Pu	HS	4 Hy	5.13	Sp	Fr	M	2548
..... SM Roadster	4-2.87x3.52	48-4200	91.3	7.10	IL	IH	AA	Ch	91.0	46.8	46.8	156.0	58.0	58.5	5.00/16	abce	1-Do	Pu	HS	4 Hy	4.88	Sp	Fr	M	1736
..... SM Roadster (Twin)	4-2.87x3.52	58-4600	91.3	7.47	IL	IH	AA	Ch	91.0	46.8	46.8	156.0	58.0	58.5	5.00/16	abce	2-Do	Pu	HS	4 Hy	4.44	Sp	Fr	M	1736
Standard..... Vanguard	4-3.35x3.62	68-4200	127.6	7.00	IL	IH	AA	Ch	94.0	51.0	54.0	167.0	69.0	64.0	6.00/16	abce	1-SD	Pu	HS	3 Hy	4.62	Sp	Fr	H	2716
..... Eight	4-2.28x2.99	28-4500	49.0	7.00	IL	IH	AA	Ch	84.0	48.5	48.5	142.0	58.0	60.0	5.20/13	abce	1-SD	Pu	HS	4 Hy	4.88	Sp	Fr	H	1484
..... Ten	4-2.48x2.99	33-4500	57.8	7.00	IL	IH	AA	Ch	84.0	48.5	48.5	145.0	58.0	60.0	5.60/13	abce	1-Do	Pu	HS	4 Hy	4.55	Sp	Fr	H	1595
Sunbeam..... MK III	4-3.19x4.33	80-4400	138.2	7.50	IL	IH	AA	Ch	97.5	47.5	50.5	168.0	62.5	60.8	5.50/16	abce	1-Do	Pu	HS	4 Hy	(3)	Sp	Fr	H	2926
..... Alpine	4-3.19x4.33	80-4400	138.2	7.50	IL	IH	AA	Ch	97.5	47.5	50.5	168.0	62.5	60.8	5.50/16	abce	1-Do	Pu	HS	4 Hy	(3)	Sp	Fr	H	2861
Swallow..... Mark I	4-3.27x3.82	90-4800	121.5	8.50	IL	IH	AA	Ch	95.0	48.0	45.5	156.0	61.0	48.5	5.50/15	abce	2-SD	Pu	HS	4 Hy	3.70	TaS	Fr	H	2030
Triumph..... Renown	4-3.35x3.82	68-4200	127.6	7.00	IL	IH	AA	Ch	111.0	51.0	54.0	181.0	54.0	65.0	5.75/16	abce	1-SD	Pu	HS	3 Hy	4.62	Sp	Fr	H	2835
..... Sports	4-3.29x3.82	90-4800	121.5	8.50	IL	IH	AA	Ch	88.0	45.0	45.5	151.0	55.5	50.0	5.50/15	abce	2-Ho	Pu	HS	4 Hy	3.70	Sp	Fr	H	1981
Vauxhall..... Wyvern	4-3.13x3.00	46-4000	92.0	6.50	IL	IH	AA	Ch	103.0	53.2	54.5	170.8	66.6	63.5	5.60/15	abce	1-Do	Pu	HS	3 Hy	4.62	Sp	Fr	H	2265
..... Wyvern	4-3.13x3.00	48-4000	92.0	7.30	IL	IH	AA	Ch	103.0	53.2	54.5	170.8	66.6	63.5	5.60/15	abce	1-Do	Pu	HS	3 Hy	4.62	Sp	Fr	H	2265
..... Velox	6-3.13x3.00	66-4000	138.0	6.50	IL	IH	AA	Ch	103.0	53.2	54.5	172.1	66.6	63.5	5.90/15	abce	1-Do	Pu	HS	3 Hy	4.12	Sp	Fr	H	2390
..... Velox	6-3.13x3.00	68-4000	138.0	7.30	IL	IH	AA	Ch	103.0	53.2	54.5	172.1	66.6	63.5	5.90/15	abce	1-Do	Pu	HS	3 Hy	4.12	Sp	Fr	H	2390
..... Cresta	6-3.13x3.00	66-4000	138.0	6.50	IL	IH	AA	Ch	103.0	53.2	54.5	172.1	66.6	63.5	5.90/15	abce	1-Do	Pu	HS	3 Hy	4.12	Sp	Fr	H	2436
..... Cresta	6-3.13x3.00	68-4000	138.0	7.30	IL	IH	AA	Ch	103.0	53.2	54.5	172.1	66.6	63.5	5.90/15	abce	1-Do	Pu	HS	3 Hy	4.12	Sp	Fr	H	2436
Wolseley..... 4-44	4-2.82x3.54	NA	76.3	7.30	IL	IH	AA	Ch	102.0	50.7	51.0	173.0	61.0	60.0	5.50/15	abce	1-Ho	Pu	HS	4 Hy	5.13	Sp	Fr	H	2520
..... 6-90	6-3.13x3.50	95-4500	161.0	7.26	IL	IH	AA	Ch	113.5	54.4	54.5	184.0	63.0	62.0	6.00/15	abce	2-SD	Pu	HS	4 Hy	4.00	TA	Fr	H	3380
ARGENTINA																									
I.A.M.E..... 1-700	2-2.99x2.99	23-4200	42.0	6.40	IL	SS	AA	.....	106.3	47.2	49.2	168.9	58.9	57.1	5.50/16	.....	1-SD	TS	HS	3 HG	3.26	TA	FR	H	1874
..... M-800	4-2.28x2.99	35-4500	48.8	7.00	HO	IH	AA	N	106.3	47.2	49.2	168.9	58.9	57.1	5.00/16	.....	1-SD	Pu	HS	3 HG	2.86	TA	FR	H	2072
..... 1500	4-3.15x2.91	55-4400	90.8	7.00	HO	IH	AA	HG	94.5	49.2	49.2	163.4	61.9	58.3	5.50/16	abce	2-SD	AC	HS	4 Hy	4.38	TA	FR	H	2050
AUSTRALIA																									
Holden..... Standard FJ-215	6-3.00x3.12	60-3800	132.5	6.50	IL	IH	AA	HG	103.0	53.0	54.0	173.3	66.8	64.0	5.50/15	abce	1-SD	Pu	HS	3 SBH	3.89	Sp	Fr	H	2154
..... Business FJ-217	6-3.00x3.12	60-3800	132.5	6.50	IL	IH	AA	HG	103.0																

OTHER FOREIGN CARS

MAKE AND MODEL	ENGINE										GENERAL DATA										REAR AXLE				Shipping Weight (Lb.)	
	Number of Cylinders, Bore and Stroke (In.)	Maximum Brake Hp. at Specified R.P.M.	Piston Displacement (Cu In.)	Compression Ratio (To -1)	Cylinder Arrangement	Valve Location	Piston Material	Cams/Shaft Drive	Wheelbase (In.)	TREAD		OVERALL DIMENSIONS (In.)		Tires (In.)	Oil Pressure to—	Carburetors—No. Used and Type	Cooling System	Shifting Method	No. of Forward Speeds	Final Drive Type	Gear Ratio (To -1)	Torque Taken By	Independent Suspension	Service Brakes		
										Front (In.)	Rear (In.)	Length Including Bumper and Bumper Guards	Width	Height—Road to Roof, No Load												
FRANCE																										
Bugatti.....101	8-2.83x3.94	200-5500	198.7	6.50	IL	IH	AA	HG	129.9	53.1	53.1	212.6	65.0	65.0	6.00/17	abcede	1-DD	Pu	HS	4	SB	.....	TA	N	H	.....
Citroen.....11CV Legere	4-3.07x3.94	58-4000	116.6	6.50	IL	IH	AA	Ch	114.6	54.1	53.3	175.2	65.7	60.6	6.50/15	abc	1-Do	Pu	HS	3	SB	3.44	Sp	Fr	H	3087
.....11CV Normale	4-3.07x3.94	58-4000	116.6	6.50	IL	IH	AA	Ch	121.7	58.8	57.9	183.1	70.5	60.6	6.50/15	c	1-Do	Pu	HS	3	SB	3.44	Sp	Fr	H	3418
.....15CV Six	6-3.07x3.94	78-3500	174.9	6.50	IL	IH	AA	HG	121.7	58.8	58.5	187.4	70.5	60.6	7.25/15	c	1-DD	Pu	HS	3	SB	3.88	Sp	Fr	H	3968
.....2CVA	2-2.44x2.44	9-3500	22.9	6.20	HO	IH	AA	HG	94.4	49.6	49.6	148.8	58.3	63.0	4.90/15	c	1-Do	AC	HS	4	SB	3.88	Sp	Fr	H	1764
.....11 Familiale	4-3.07x3.94	58-4000	116.6	6.50	IL	IH	AA	Ch	128.9	58.8	57.9	190.0	70.5	62.2	7.25/15	c	1-Do	Pu	HS	3	SB	3.88	Sp	Fr	H	4300
.....15 Familiale	6-3.07x3.94	78-3500	174.9	6.50	IL	IH	AA	Ch	128.9	58.8	58.5	194.8	70.5	62.2	7.25/15	c	1-DD	Pu	HS	3	SB	3.88	Sp	Fr	H	4740
.....2CVAZ	2-2.60x2.44	12-3500	25.9	6.20	HO	IH	AA	HG	94.5	49.6	49.6	148.8	58.3	63.0	4.90/15	abced	1-SD	AC	HS	4	SB	4.43	Sp	Fr	H	1001
Hotchkiss.....LA13CV	4-3.39x3.92	.....	141.0	.....	.....	.....	.....	.....	115.2	57.1	56.6	190.6	70.9	.....	6.40/16	.....	.....	HS	3	SQ	.....	.....	Fr	.....	.....
.....LA20CV	6-3.39x3.94	.....	212.6	.....	.....	.....	.....	.....	115.2	57.1	56.6	190.6	70.9	.....	6.40/16	.....	.....	HS	3	SQ	.....	.....	Fr	.....	.....
Panhard.....Junior	2-1.78x2.85	42-5000	14.2	7.25	HO	.....	AA	.....	83.9	44.7	44.7	145.7	59.1	51.2	5.70/15	.....	1-DD	AC	HS	4	.....	.....	FR	H	.....
.....Dyna 54	2-1.78x2.85	42-5000	14.2	7.25	HO	IH	AA	.....	101.4	51.2	51.2	179.9	63.0	57.1	5.70/15	.....	1-DD	AC	HS	4	.....	.....	FR	H	.....
Peugeot.....203	4-2.96x2.88	45-4500	78.7	6.97	IL	IH	AA	Ch	101.5	52.0	52.0	171.2	63.5	61.5	6.00/16	.....	1-Do	Pu	HS	4	Wo	5.75	TT	Fr	H	1980
Renault.....R1062	4-2.15x3.15	21-4100	45.6	7.25	IL	IH	AS	HG	82.7	48.0	48.0	142.9	56.3	57.9	5.00/15	abce	1-Do	Pu	HS	3	SB	4.71	.....	FR	H	1213
.....R1100	4-3.35x3.46	62-3800	121.8	7.00	IL	IH	AS	HG	110.2	55.1	55.1	185.0	67.7	63.0	6.40/15	abce	1-Do	Pu	HS	4	SB	4.86	TA	FR	H	2818
Rovin.....3CVC4	2-2.76x2.36	13-3200	28.2	.....	HO	.....	.....	.....	70.9	38.6	38.6	154.0	45.3	39.2	3.50/10	.....	1-SU	.....	HS	3	.....	.....	Sp	N	M	.....
Salmonson.....2300S	4-3.31x4.13	110-5000	140.3	7.50	IL	IH	AA	HG	105.7	53.9	53.5	173.6	65.7	56.9	6.25/25	abe	1-Dt	Pu	HS	4	SB	3.62	.....	Fr	H	.....
Simca.....1200XB	4-2.83x2.95	45-4500	74.5	6.75	IL	IH	AA	Ch	96.1	49.4	49.2	160.0	61.0	57.0	5.60/14	abc	1-SD	Pu	HS	4	Hy	4.44	Sp	Fr	H	2009
.....1200XS	4-2.83x2.95	51-4800	74.5	7.85	IL	IH	AA	Ch	96.0	49.4	49.2	167.0	62.0	58.0	5.60/14	abc	1-SD	Pu	HS	4	Hy	4.44	Sp	Fr	H	2030
.....F52A Vandette 55	6-2.60x3.38	80-4800	143.5	7.20	V	L	.....	.....	106.0	54.0	53.0	178.0	69.1	58.3	6.40/13	.....	.....	HS	3	Hy	3.90	.....	.....	.....	3628	
Talbot.....Grand Sport	6-3.66x4.33	210-4500	273.4	9.00	IL	IH	AS	Ch	114.2	55.9	58.5	.....	.....	.....	6.00/18	abcede	3-Do	Pu	Pr	4	SB	3.35	Sp	Fr	H	3827
.....Lago Record	6-3.66x4.33	170-4200	273.4	7.00	IL	IH	AS	Ch	123.0	55.9	58.5	.....	.....	.....	6.00/18	abcede	3-Do	Pu	Pr	4	SB	3.58	Sp	Fr	H	3968
GERMANY																										
Auto Union.....AU900	3-2.80x2.99	34-4000	54.7	6.50	IL	N	AA	.....	92.5	46.9	49.2	166.3	63.0	67.1	5.60/15	.....	1-SD	TS	HS	4	Hy	4.72	Sp	Fr	H	2770
BMW.....501	6-2.60x3.78	72-4400	120.3	6.80	IL	.....	AA	Ch	111.6	52.9	56.3	186.2	69.1	60.2	5.50/16	abcede	1-DD	Pu	HS	4	Hy	4.23	TA	Fr	H	2830
.....502	8-2.91x2.95	105-4800	157.4	6.90	V	.....	AA	Ch	111.6	52.9	56.3	186.2	69.1	60.2	5.50/16	abcede	1-DD	Pu	HS	4	Hy	4.23	TA	Fr	H	3055
Borgward.....Hansa 2400	6-3.07x3.21	42-4500	142.6	6.90	IL	IH	AA	HG	103.3	53.5	55.9	175.6	70.1	58.7	6.40/15	.....	1-DD	Pu	HA	4	Hy	3.90	.....	FR	H	3090
.....Hansa 1800 Diesel	4-3.07x3.62	42-3400	107.2	19.80	IL	IH	AA	HG	102.4	49.8	52.1	175.3	63.8	61.4	6.40/15	abc	Inj	Pu	HS	4	Hy	4.22	Sp	FR	H	2680
.....Hansa 2400 Pullman	6-3.07x3.21	82-4500	142.6	6.90	IL	IH	AA	HG	111.0	53.5	56.0	183.0	70.1	58.8	6.70/15	.....	1-DD	Pu	HA	4	Hy	3.90	.....	FR	H	3318
.....Isabella	4-2.95x3.33	60-4700	91.1	6.80	IL	IH	AA	HG	102.4	52.5	53.5	172.8	67.1	57.7	5.90/13	abced	1-DS	Pu	HS	4	Hy	3.90	Sp	FR	H	.....
EMW.....F9	3-2.76x3.07	32-3800	54.9	6.80	IL	.....	AA	SG	92.5	46.6	49.6	165.4	63.0	57.1	5.00/16	b	1-St	TS	HS	4	Hy	.....	Sp	FR	H	1982
.....340-2	6-2.60x3.78	55-3750	175.1	6.10	IL	IH	AA	Ch	113.0	51.2	55.1	181.1	68.1	64.2	5.50/16	b	1-Do	Pu	HS	4	Hy	.....	Sp	FR	H	2798
.....327-2	6-2.60x3.78	57-3750	175.1	6.10	IL	IH	AA	Ch	108.3	51.2	51.2	177.2	63.0	57.1	5.50/16	b	1-Do	Pu	HS	4	Hy	.....	Sp	FR	H	2491
Ford.....Taunus 12M	4-2.50x3.64	38-4250	71.5	6.80	IL	L	AS	HG	98.0	48.0	48.0	160.4	62.2	61.0	5.90/13	abc	1-Do	Pu	HS	3	SB	4.37	Sp	Fr	H	1810
.....Taunus 12	4-2.50x3.64	38-4250	71.5	6.80	IL	L	AS	HG	98.0	48.0	48.0	160.4	62.2	61.0	5.90/13	abc	1-Do	Pu	HS	3	SB	4.37	Sp	Fr	H	1790
Goliath.....GP700	2-2.91x3.15	26-4000	42.0	6.40	IL	.....	AA	SG	90.6	49.5	49.5	163.4	63.0	57.1	5.60/15	.....	1-Do	TS	HS	4	HG	.....	Sp	Fr	H	1913
.....GP700E	2-3.01x3.15	29-4000	42.0	7.70	IL	.....	AA	N	90.6	49.2	49.2	158.7	62.2	56.0	5.60/15	.....	Inj	Pu	HS	4	.....	.....	Sp	Fr	H	1918
Lloyd.....LP400S, LS400S	2-2.44x2.52	13-3250	23.5	6.85	IL	N	AA	N	78.7	41.3	43.3	135.8	55.3	55.1	4.25/15	N	1-St	AC	HS	3	StB	4.82	Sp	FR	H	1003
.....LT500/PKW	2-2.44x2.52	13-3250	23.5	6.85	IL	N	AA	N	92.5	47.2	47.2	139.0	57.1	63.8	5.00/15	N	1-St	AC	HS	3	StB	5.22	Sp	FR	H	1312
Mercedes-Benz.....170SV	4-2.95x3.94	50-3600	107.8	6.70	IL	L	AA	Ch	112.0	51.6	56.7	175.3	66.3	62.7	5.50/16	abcede	1-SU	Pu	HS	4	Hy	4.11	Rah	Fr	H	2530
.....170SD	4-2.95x3.94	43-3200	107.8	19.00	IL	.....	AA	BG	112.0	51.6	56.7	175.3	66.3	62.7	5.50/16	abcede	.....	Pu	HS	4	Hy	4.11	Rah	Fr	H	2640
.....180	4-2.95x3.94	58-4000	107.8	6.70	IL	L	AA	Ch	104.3	56.0	57.2	175.5	68.6	61.3	6.40/13	abcede	1-SD	Pu	HS	4	Hy	3.89	TA	Fr	H	2360
.....180D	4-2.95x3.94	43-3200	107.8	19.00	IL	.....	AA	BG	104.3	56.0	57.2	175.5	68.6	61.3	6.40/13	abcede	.....	Pu	HS	4	Hy	3.70	TA	Fr	H	2470
.....220A	6-3.16x2.86	92-4800	134.0	7.60	IL	.....	AA	Ch	111.0	50.8	57.9	195.5	68.6	61.5	6.70/13	abcede	1-DD	Pu	HS	4	Hy	4.11	TA	Fr	H	2600
.....300B	6-3.34x3.47	136-4500	182.8	7.50	IL	.....	AA	Ch	120.0	58.3	60.0	199.0	72.4	63.0	7.10/15	abcede	2-SD	Pu	HS	4	Hy	4.67	Rah	Fr	H	3660
.....300S	6-3.34x3.47	163-5000	182.8	7.80	IL	.....	AA	Ch	114.2	58.3	60.0	186.5	75.3	59.5	6.70/15	abcede	3-SD	Pu	HS	4	Hy	4.13	Rah	Fr	H	3600
.....300SL	6-3.34x3.47	240-6100	182.8	8.55	IL	.....	AA	Ch	94.5	54.5	56.5	178.0	70.5	51.3	6.50/15	abcede	.....	Pu	HS	4	Hy	3.64	Rah	Fr	H	2560
Opel.....Rekord, Olympia	4-3.15x2.91	50-4200	90.8	7.00	IL	IH	AS	HG	97.9	47.2	49.9	166.9	64.0	61.0	5.60/13	abcede	1-Do	Pu	HS	3	Hy	3.90	Sp	Fr	H	1907
.....Car-A-Van	4-3.15x2.91	50-4200	90.8	7.00	IL	IH	AS	HG	97.9	47.4	49.9	167.7	64.0	62.2	6.40/13	abcede	1-Do	Pu	HS	3	Hy	4.22	Sp	Fr	H	2063
.....Kapitan	6-3.15x3.23	78-3900	150.9	7.00	IL																					

OTHER FOREIGN CARS

MAKE AND MODEL	Number of Cylinders, Bore and Stroke (In.)	Maximum Brake Hp. at Specified R.P.M.	ENGINE				GENERAL DATA										REAR AXLE			Shipping Weight (Lb.)						
			Piston Displacement (Cu In.)	Compression Ratio (To -1)	Cylinder Arrangement	Valve Location	Piston Material	Cams Shaft Drive	Wheelbase (In.)	TREAD		OVERALL DIMENSIONS (In.)				Oil Pressure to—	Carburetors—No. Used and Type	Cooling System	Shifting Method	No. of Forward Speeds	Final Drive Type	Gear Ratio (To -1)	Torque Taken By	Independent Suspension	Service Brakes	
										Front (In.)	Rear (In.)	Length Including Bumpers and Bumper Guards	Width	Height—Road to Roof, No Load	Tires (In.)											
ITALY—continued																										
Ferrari..... 250 Europa	12-2.68x2.68	200-6300	180.8	8.00	V	IH	Ch	109.2	51.7	51.5	.....	.....	.....	7.10/15	abcde	3-DD	Pu	HS	4	.....	.....	.....	Fr	H	2300	
..... 375 America	12-3.31x2.68	300-6300	275.8	8.00	V	IH	Ch	109.2	51.7	51.5	.....	.....	.....	7.10/15	abcde	3-DD	Pu	HS	4	.....	.....	.....	Fr	H	2300	
..... 375 Millemiglia	12-3.31x2.68	340-7000	275.8	9.00	V	IH	Ch	105.9	52.2	52.0	.....	.....	.....	(5)	.....	3-DF	Pu	HS	4	.....	.....	.....	Fr	H	1984	
..... 500 Mondial	4-3.54x3.07	170-7000	121.1	9.50	IL	IH	Ch	88.5	50.3	50.6	.....	.....	.....	(6)	.....	2-Dt	Pu	HS	5	.....	.....	.....	Fr	H	1543	
..... 750 Monza	4-4.05x3.54	255-6200	183.0	8.00	IL	IH	Ch	88.6	50.3	50.6	.....	.....	.....	6.00/16	.....	2-.....	Pu	HS	5	.....	.....	.....	Fr	H	.....
..... 250 G-T	12-2.87x2.31	220-7000	180.1	9.00	V	IH	Ch	102.4	52.2	52.0	.....	.....	.....	6.00/16	.....	3-.....	Pu	HS	4	.....	.....	.....	Fr	H	.....
Fiat..... 500C	4-2.05x2.64	17-4400	34.7	6.45	IL	IH	AA	Ch	78.8	44.0	42.7	128.0	50.6	55.5	4.25/15	abc	1-SD	TS	HS	4	SB	5.12	Sp	Fr	H	1276
..... 8V	8-2.83x2.41	105-6000	121.8	8.50	V	IH	AA	Ch	94.5	50.8	50.8	159.0	61.8	50.8	6.50/15	abce	2-DD	Pu	HS	4	Hy	4.44	TA	FR	H	2047
..... 8V	8-2.83x2.41	115-6000	121.8	8.50	V	IH	AA	Ch	94.5	50.8	50.8	159.0	61.8	50.8	6.50/15	abce	2-DD	Pu	HS	4	Hy	4.44	TA	FR	H	2047
..... 1100(103)	4-2.68x2.95	36-4400	66.4	6.70	IL	IH	AA	Ch	92.1	48.4	47.7	148.6	57.4	58.5	5.20/14	abce	1-SD	Pu	HS	4	Hy	4.30	Sp	Fr	H	1740
..... 1100TV	4-2.68x2.95	50-5200	66.4	6.70	IL	IH	AA	Ch	92.1	48.4	47.7	148.6	57.4	58.5	5.20/14	abce	1-DD	Pu	HS	4	Hy	4.30	Sp	Fr	H	1795
..... 500C	4-2.05x2.64	17-4400	34.7	6.45	IL	IH	AA	Ch	78.8	44.0	42.7	130.7	50.6	57.3	(7)	abc	1-SD	TS	HS	4	SB	5.12	Sp	Fr	H	1408
..... 1400A	4-3.23x2.60	50-4800	85.1	7.00	IL	IH	AA	Ch	104.3	52.2	52.0	169.5	65.2	62.0	5.90/14	abce	1-DD	Pu	HS	4	Hy	4.44	Sp	Fr	H	2380
..... 1400A Diesel	4-3.23x3.54	40-3200	116.0	20.00	IL	IH	AA	HG	104.3	52.4	52.2	169.5	65.2	62.6	6.40/14	abce	1nj	Pu	HS	4	Hy	4.10	Sp	Fr	H	2616
..... 1900A	4-3.23x3.54	70-4000	116.0	7.50	IL	IH	AA	Ch	104.3	52.4	52.2	169.5	65.2	62.6	6.40/14	abce	1-DD	Pu	HS	4	Hy	4.30	Sp	Fr	H	2544
..... 1100	4-2.68x2.95	36-4400	66.4	6.70	IL	IH	AA	Ch	92.1	48.4	47.7	147.4	57.4	58.8	5.60/14	abce	1-SD	Pu	HS	4	Hy	4.30	Sp	Fr	H	1861
Iso..... Isetta	1-1.89x2.60	10-4500	7.3	6.50	IL	N	AA	N	59.1	47.2	19.7	88.6	52.8	52.0	4.50/10	N	1-St	AC	HS	4	Ch	.....	Sp	Fr	H	726
Lancia..... Appia	4-2.68x2.95	38-3800	66.5	7.40	V	IH	AA	Ch	97.6	46.4	46.5	152.2	55.9	56.0	5.60/15	abce	1-SD	Pu	HS	4	Hy	4.55	.....	Fr	H	1612
..... C10 Appia	4-2.68x2.95	38-4800	66.5	7.40	V	IH	AA	Ch	97.6	46.4	46.5	152.2	55.9	56.0	5.60/15	abce	1-St	Pu	HS	4	Hy	5.22	.....	Fr	H	1808
..... B12	2-2.95x3.37	87-4300	138.2	7.40	V	IH	AA	Ch	112.2	49.2	51.2	176.6	61.4	69.3	6.50/15	abce	1-Dt	Pu	HS	4	SB	4.45	.....	Fr	H	2646
..... B20 Danum 2952	6-3.07x3.37	118-5000	149.9	8.00	V	IH	AA	Ch	103.3	49.2	51.2	172.0	61.0	53.5	6.50/15	abce	1-Dt	Pu	HS	4	SB	4.27	.....	Fr	H	2535
Maserati..... A66/54	6-3.01x2.83	120-6000	121.0	7.10	V	IH	AA	Ch	100.4	52.6	48.0	155.0	60.0	51.0	6.00/16	abce	3-.....	Pu	Pr	4	SB	4.75	.....	Fr	H	2100
..... A6GCS	6-3.01x2.83	170-7200	121.0	8.75	IL	IH	AA	Ch	90.9	52.6	48.0	150.0	60.0	51.0	6.00/16	abce	3-Dt	Pu	HS	4	SB	.....	.....	Fr	H	1650
..... 250/F	6-3.31x2.95	250-7200	152.1	12.00	IL	IH	AA	HG	89.0	51.2	49.2	156.0	55.0	39.0	(8)	abc	3-.....	Pu	HS	4	SB	Var	.....	Fr	H	1400
Nardi..... 750cc	2-3.07x3.07	50-6000	45.8	8.90	HO	IH	AA	HG	74.8	45.3	44.1	140.0	.....	35.4	4.00/15	.....	2-St	AC	HS	4	SB	Var	Sp	Fr	H	880
..... 750cc	2-3.07x3.07	53-6200	45.8	10.20	HO	IH	AA	HG	70.9	43.3	39.4	120.0	.....	35.4	4.00/15	.....	2-St	AC	HS	4	SB	Var	Sp	Fr	H	540
..... 750cc	4-2.50x2.32	46-6800	45.8	10.00	IL	IH	AA	HG	74.8	45.3	44.1	140.0	.....	35.4	4.00/15	.....	2-St	Pu	HS	4	SB	Var	Sp	Fr	H	880
O.S.C.A..... 1100/2AD	4-2.76x2.80	92-6600	66.6	9.00	.....	.....	.....	.....	88.6	47.2	45.3	.....	.....	5.00/15	.....	.....	Pu	HS	4	.....	Var	.....	Fr	H	1609	
..... 1500/2AD	4-3.07x3.07	125-6300	90.9	9.50	.....	.....	.....	.....	88.6	47.2	45.3	.....	.....	(9)	.....	.....	Pu	HS	4	.....	Var	.....	Fr	H	1653	
..... 2000S	6-2.99x2.87	165-6500	121.2	9.00	.....	.....	.....	.....	88.6	49.6	47.6	.....	.....	(6)	.....	.....	Pu	HS	4	.....	Var	.....	Fr	H	1918	
JAPAN																										
Nissan..... Datsun 110	4-2.36x2.99	25-4000	52.5	6.50	IL	L	AA	HG	88.6	46.1	46.5	152.0	52.7	59.2	5.00/15	ce	1-SD	Pu	HS	4	Hy	6.43	Sp	N	H	1896
Ohta..... PH	4-2.42x2.99	24-4000	55.1	6.50	IL	L	AA	HG	84.6	45.7	45.3	152.4	58.3	61.0	5.00/16	abce	1-Do	Pu	HS	3	SB	6.50	Sp	N	H	2048
..... PG	4-2.42x2.99	24-4000	55.1	6.50	IL	L	AA	HG	84.6	45.7	45.3	153.1	59.1	60.1	5.00/15	abce	1-Do	Pu	HS	3	Hy	5.86	Sp	N	H	1896
Toyopet..... Master RR	4-3.03x3.07	48-4000	88.5	6.80	IL	IH	AA	HG	99.6	51.9	53.9	168.3	65.8	61.8	6.00/16	abce	1-SD	Pu	HS	3	Hy	5.29	Sp	N	H	2530
..... Crown RS	4-3.03x3.07	48-4000	88.5	6.80	IL	IH	AA	HG	99.6	52.2	53.9	168.7	66.1	60.0	6.40/15	abce	1-SD	Pu	HS	3	Hy	5.29	Sp	N	H	2530
SPAIN																										
Pegaso..... 102B/2.8	8-3.14x2.76	.....-6300	171.5	Var	V	IH	AA	HG	92.0	52.0	50.8	162.0	63.0	51.0	6.00/16	abc	(10)	Pu	HS	5	SB	Var	Sp	Fr	H	2183
..... 102BS/2.8	8-3.14x2.76	250-6600	171.5	Var	V	IH	AA	HG	92.0	52.0	50.8	162.0	63.0	51.0	6.50/16	abc	1-DH	Pu	HS	5	SB	Var	Sp	Fr	H	2340
..... 102B/3.2	8-3.35x2.72	200-6000	193.9	Var	V	IH	AA	HG	92.0	52.0	50.8	162.0	63.0	51.0	6.50/16	abc	2-FB	Pu	HS	5	SB	Var	Sp	Fr	H	2183
..... 102BS/3.2	8-3.35x2.72	370-6000	193.9	Var	V	IH	AA	HG	92.0	52.0	50.8	162.0	63.0	51.0	6.50/16	abc	4-DH	Pu	HS	5	SB	Var	Sp	Fr	H	2340
SWEDEN																										
SAAB..... 92B	2-3.15x2.99	28-4000	46.6	6.60	IL	N	AA	N	97.2	46.4	46.4	155.5	53.7	57.0	5.00/15	N	1-SD	TS	HS	3	HG	5.35	.....	FR	H	1725
Volvo..... PV-444-E	4-3.95x3.15	44-4000	86.0	6.40	IL	IH	AA	HG	102.3	51.2	51.8	177.0	62.0	65.0	5.90/15	abc	1-SD	Pu	HS	3	Hy	4.56	TA	Fr	H	1996
..... PV-445-DH	4-3.95x3.15	44-4000	86.0	6.40	IL	IH	AA	HG	102.3	51.2	51.8	174.0	63.0	66.0	6.00/15	abc	1-SD	Pu	HS	3	Hy	5.43	Sp	Fr	H	2270
..... PV-831, 832	6-3.31x4.33	90-3600	223.8	6.50	IL	L	AA	Ch	127.9	59.2	60.0	205.0	73.0	70.0	7.00/15	abc	1-SD	Pu	HS	3	Hy	4.45	Sp	Fr	H	3781

ABBREVIATIONS

- *—Four barrel carburetor optional.
- Front wheel drive.
- Mechanical or hydraulic.
- †—Alternate engine, transmission and rear axle available.
- Without bumpers.
- (1)—Fully automatic, preselctive or hand shift optional.
- (2)—One downdraft or one horizontal with supercharger.
- (3)—3.90 with std. trans. and 4.22 with overdrive.
- (4)—5.90 or 6.10/15.
- (5)—Front, 6.00/16; rear, 7.50/16.
- (6)—Front, 5.25/16; rear, 6.00/16.
- (7)—4.25 or 4.40/15.
- (8)—Front, 5.50/16; rear, 7.00/16.
- (9)—Front, 5.00/15; rear, 5.50 or 5.90/15.
- (10)—One of four dual downdrafts.

- a—Main bearings.
- b—Connecting rod bearings.
- c—camshaft bearings.
- d—Piston pins.
- e—Timing chain or gears.
- AA—Aluminum alloy.
- AC—Air cooled.
- AS—Aluminum alloy and steel strut.
- AT—Alloy tinned.
- AU—Automatic.
- BG—Beryl gear.
- Ch—Chain.
- CH—Chain and helical gear.
- DD—Dual downdraft.
- DF—Downdraft, four barrel.
- DH—Dual horizontal.
- Do—Downdraft.
- Dt—Dual throat.
- F—Front, 5.50/16; rear, 7.00/16.
- FB—Four barrel.
- Fr—Front.

- FR—Front and rear.
- H—Hydraulic.
- HA—Hand shift or automatic.
- HG—Helical gear.
- HM—Front, hydraulic; rear, mechanical.
- Ho—Horizontal.
- HO—Horizontally opposed.
- HS—Hand shift.
- HU—Horizontal updraft.
- Hy—Hypoid.
- IH—In head.
- IL—In line.
- lnj—Injectors.
- L—Valves at

WHEEL TYPE TRACTORS

Line Number	TRACTOR MAKE AND MODEL	GENERAL					DRAW-BAR		OVERALL DIMENSIONS			WHEELS				HP. RATING		Nebraska Test Number	Power Take-off	Number of Forward Speeds	Number of Reverse Speeds	Travel Speeds at Normal Governed Engine R.P.M. (M.P.H.) with Standard Wheels					
		Wheelbase (In.)	Minimum Turning Radius Outside (Ft.)	Ground Clearance (In.)	Shipping Weight with Rubber Tyres (Lb.)	TREAD (In.)		Lateral Adjustment (In.)	Height Above Ground (In.)	Length (In.)	Width (In.)	Height-To Highest Point (In.)	Standard Equipment	STEEL Diam. and Face		TIRE SIZE											
						Minimum	Maximum							Front (In.)	Rear (In.)	Front (In.)	Rear (In.)	Belt	Drawbar			First	Second	Third			
1	Allis-Chalmers 1B 57 1/2	7	12 3/4	23 5/8	40 1/2	52 1/2	11 1/2	22 1/2	12 1/2	97 1/2	52 1/2	54 1/2	RT			5.00/15	9/24	22.87	18.00	Op	3	1	3.50	5.30	10.0		
2	B 73 3/4	7 1/2	21 1/4	20 1/2	40 1/2	52 1/2	11 1/2	22 1/2	12 1/2	110 1/2	52 1/2	62 1/2	RT			4.00/15	9/24	22.87	19.51	Op	3	1	2.75	4.25	8.50		
3	CA 81 1/2	7 1/2	22 1/2	3000	52	80	14 1/2	14	12 1/2	124 1/2	67 1/2	76 1/2	RT			5.00/15	10/24	26.62	23.55	St	4	1	2.00	3.50	4.50		
4	G 68 1/2	6 1/2	17 1/2	1285	36	64	7 1/2	13	11 1/2	116	36 1/2	55 1/2	RT			4.00/12	6/30	10.91	9.59	St	4	1	1.60	2.26	3.57		
5	WD-45 88	8 1/2	28 1/2	4465	56	90	8 1/2	18 1/4	128	74 1/2	81 1/2	RT				5.50/16	12.00/28	45.27	40.01	St	4	1	2.40	3.75	5.00		
6	Brockway 49D 76 1/2	10 1/4	20	3600	48	76	28 1/2	16	115	63		RT				6.00/16	11/28	35.00	32.00	St	4	1	2.16	3.34	4.71		
7	49B 76 1/2	10 1/4	20	3600	48	76	28 1/2	16	115	63		RT				6.00/16	11/28	31.75	28.00	St	4	1	2.16	3.34	4.71		
8	49K 76 1/2	10 1/4	20	3600	48	76	28 1/2	16	115	63		RT				6.00/16	11/28			St	4	1	2.16	3.34	4.71		
9	Case VA 75 1/4	9 3/8	15 3/8		48	72	16	14 1/4	113 1/2	64 1/2	53 1/2	Op	25x4	38x8	6.00/16	10/28			Op	4	1	2.30	3.30	4.00			
10	VAC 83	8 1/2	22 1/4		48	88	16	16 1/4	122 1/2	80 1/2	58 1/2	Op	21x3 1/2	42x3	5.00/15	9/34			Op	3	1	2.70	3.50	4.50			
11	VAI 75 1/4	9 3/8	15 3/8		44	72	18	12 1/2	109 1/2	65	51 1/2	RT				6.00/16	9/24			Op	4	1	2.64	4.55	5.82		
12	S 66	10			46		18	13	108 1/2	58 1/2	51 1/2	Op	25x4	42x8	5.00/15	11/26			Op	4	1	2.50	3.50	5.00			
13	SC 82 1/2	Piv			40	80	17	16 1/4	133	74 1/2	56 1/2	Op	24 1/2 x 4	48x2 1/2	5.00/15	10/38			Op	4	1	2.50	3.50	4.75			
14	SI 65 1/2	12			48 1/2		18	15 1/2	110 1/2	61 1/2	51 1/2	RT				6.00/16	12.00/24			Op	4	1	2.52	3.57	4.93		
15	D 66 3/4	Piv			50		29	13	118	61 1/2	50 1/2	Op	28x5	42x11 1/2	6.00/16	12/26			Op	4	1	2.25	3.75	5.25			
16	DC 89	10			48	84	21	16.8	140	81	58 1/2	Op	25x4	48x2 1/2	5.50/16	11/38			Op	4	1	2.00	3.75	5.00			
17	DI 66 1/4	12			52		17	11	111	67.2	51 1/2	RT				6.00/16	13.00/24			Op	4	1	1.90	3.62	5.00		
18	LA 82	13			58 1/2		33 1/2	15	140	72 1/2	61 1/2	Op	30x6	48x12	7.50/18	14/30			Op	4	1	2.50	3.33	4.33			
19	LAI 82	16 1/4			59 1/2		16	13	131	73 1/2	59 1/2	RT				7.50/18	14.00/28			Op	4	1	1.73	3.12	4.13		
20	VAC-14 77				48	88	16	15 1/4	114 1/2	80 1/2	58 1/2	RT				5.00/15	11/28			Op	4	1	2.25	3.00	4.00		
21	500 Diesel 87 3/4				53 1/4	60 1/4	26 1/2	13	144 1/2	76 1/4	61 1/2	RT				7.50/18	14/30			Op	4	1	2.61	3.58	4.76		
22	Cockshutt 20 79	7 1/4	24 1/2	2050	48	76	19 1/2	12 1/2	114	63	76	RT				5.00/15	10/24	30.45	26.74	Op	4	1	2.31	3.50	5.00		
23	Rowcrop 30 84 3/4	8 1/2	23	3600	56	84	21 1/2	13	127	74 1/2	76	RT				5.50/16	10/38	32.95	28.43	Op	4	1	3.12	4.50	6.25		
24	40 89 1/2	12	26	5000	56	84	23 1/2	14 1/2	134 1/2	75	79 1/2	RT				6.00/16	12/38	45.59	40.06	Op	6	2	1.62	2.75	3.82		
25	50G 89 1/2	12	26	5860	56	84	23 1/2	14 1/2	134 1/2	75 1/2	79 1/2	RT				7.50/16	14/34	57.81	51.51	Op	6	2	1.82	2.57	3.53		
26	50D 89 1/2	12	26	5890	56	84	23 1/2	14 1/2	134 1/2	75 1/2	79 1/2	RT				7.50/16	14/34	53.25	47.16	Op	6	2	1.82	2.57	3.53		
27	Deere, John 50 90	8 1/2	24	4435	56	88	8 1/2	16 1/2	132 1/2	86 1/2	81 1/2	RT				5.50/16	11/38	30.97	27.49	Op	6	1	1.50	2.50	3.50		
28	60 90	8 1/2	26	5300	56	88	8 1/2	15 1/2	139	86 1/2	84 1/2	RT				6.00/16	12/38	41.57	36.94	Op	6	1	1.50	2.50	3.50		
29	60 Standard 75 3/4	13 1/2	24 1/2	5347	58	62	27	14 1/2	123 1/2	70 1/2	74 1/2	RT				6.00/16	14/30			Op	6	1	1.50	2.75	3.25		
30	60 Orchard 75 3/4	13 1/2	21 1/2	5332	54 1/2	58 1/2	27	12 1/2	125 1/2	71 1/2	57	RT				6.00/16	14/26			Op	6	1	1.50	2.75	3.25		
31	60 Hi-Crop 98 1/2	16 1/2	30 1/2	6885	60	90	21	14 1/2	198 1/2	102	152 1/2	RT				7.50/20	11/38			Op	6	1	1.50	2.25	3.50		
32	70 90	9 1/2	25 1/2	5945	60	88	8 1/2	16 1/2	136 1/2	86 1/2	88 1/2	RT				6.00/16	12/38	50.35	44.21	Op	6	1	2.50	3.50	4.50		
33	70 90	9 1/2	25 1/2	5945	60	88	8 1/2	16 1/2	136 1/2	86 1/2	88 1/2	RT				6.00/16	12/38	50.35	44.21	Op	6	1	2.50	3.50	4.50		
34	70 90	9 1/2	25 1/2	5945	60	88	8 1/2	16 1/2	136 1/2	86 1/2	88 1/2	RT				6.00/16	12/38	50.35	44.21	Op	6	1	2.50	3.50	4.50		
35	70 Standard 82	14	25 1/2	6815	62	80	8 1/2	14 1/2	129	86 1/2	129	RT				6.50/18	15/30			Op	6	1	2.50	3.50	4.50		
36	70 Standard 82	14	25 1/2	6815	62	80	8 1/2	14 1/2	129	86 1/2	129	RT				6.50/18	15/30			Op	6	1	2.50	3.50	4.50		
37	70 Standard 82	14	25 1/2	6815	62	80	8 1/2	14 1/2	129	86 1/2	129	RT				6.50/18	15/30			Op	6	1	2.50	3.50	4.50		
38	70 Standard 82	14	25 1/2	6815	62	80	8 1/2	14 1/2	129	86 1/2	129	RT				6.50/18	15/30			Op	6	1	2.50	3.50	4.50		
39	70 Hi-Crop 98 1/2	16 1/2	30 1/2	7410	60	90	21	14 1/2	153	77 1/2	101	RT				5.00/15	9/24	21.42	19.19	Op	4	1	1.62	3.12	4.25		
40	M 70	8 1/2	21	2750	38	52	15 1/2	16	110	51	58 1/2	RT				7.50/18	14/34	50.96	45.69	Op	5	1	2.13	3.33	4.25		
41	R 85 1/2	14 1/4	25 1/4	7500	62 1/2	62 1/2	40	15 1/2	147	79 1/2	78 1/2	RT	30x6	54x12	5.00/15	9/34	21.57	18.77	Op	4	1	1.62	3.12	4.25			
42	MT 82 1/2	8 1/2	21		48	96	15 1/2	16 1/2	125 1/2	89 1/2	73 1/2	RT				5.00/15	9/24	21.42	19.19	Op	4	1	1.62	3.12	4.25		
43	MI 62	8	21		48	52	13 1/2	11	62	58 1/2	72 1/2	RT				5.00/15	9/34	25.23	22.88	Op	4	1	1.53	3.16	4.37		
44	40 82 1/2	8 1/2	21	3000	48	96	10 1/2	14 1/2	130 1/2	88 1/2	72 1/2	RT				5.00/15	10/24	24.86	22.36	Op	4	1	1.59	3.33	4.66		
45	40-S 70 7 1/2	8 1/2	21	2880	38 1/2	54 1/2	25 1/2	12 1/2	115 1/2	55 1/2	70	RT				5.00/15	10/24			Op	4	1	1.59	3.33	4.66		
46	40-U 77 3/4	9	11	2600	41	56 1/2	6 1/2	11 1/2	129 1/2	55 1/2	64 1/2	RT				5.00/15	10/24			Op	4	1					
47	Earthmaster C 66	7	20	1520	36	64			98	51	61	RT				4.00/15	8/24			Op	3	1	2.27	3.24	5.18		
48	CH 66	7	24 1/2	1545	36	64			100	51	64	RT				4.00/15	7/30			Op	3	1	2.54	3.64	5.81		
49	CN 66	7	20	1505	38	58			98	46	61	RT				4.00/15	8/24			Op	3	1	2.27	3.24	5.18		
50	CNH 66	7	24 1/2	1530	38	58			100	46	64	RT				4.00/15	7/30			Op	3	1	2.54	3.64	5.81		
51	D 66	9	20	1600	56	84			98	71	61	RT				4.00/15	9/24			Op	3	1	2.40	3.43	5.48		
52	DH 66	9	24 1/2	1610	56	84			100	71	64	RT				4.00/15	7/30			Op	3	1	2.54	3.64	5.81		
53	Ferguson TO-35 Std. 72	8 1/2		2850	48	76	17 1/2	Ad	116 1/2	63 1/2	57	RT				4.00/19	10/28			NT	St	6	2	1.18	1.77	3.24	
54	TO-35 DeLuxe 72	8 1/2		2908	48	76	17 1/2	Ad	116 1/2	63 1/2	57	RT				4.00/19	10/28			NT	St	6					

WHEEL TYPE TRACTORS

Travel Speeds at Normal Governed Engine R.P.M. with Standard Wheels				ENGINE				FUEL		CAPACITIES																						
Fourth	Fifth	Sixth	Reverse	Make and Model	Number of Cylinders—Bore and Stroke (In.)	Piston Disp. (Cu. In.)	R.P.M. at Governed Speed	Valve Arrangement	Number of Main Bearings	Diameter of Main Bearings	Standard	Optional	Ignition—Make	Carburetor or Injector Pump—Make	Air Cleaner—Make	Governor—Make	Oiling System—Type	Cooling System—Type	Clutch—Make and Type	Final Drive—Type	Diameter (In.)	Face (In.)	Normal R.P.M.	Steering Type	Cooling System (Gal.)	Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.)	Starting Method	Line Number	
30 10.0	25 8.6	20 7.5	11.25	3.80 Own...1B	4-3 1/2 x 3 1/2	125 1500	1	I	3	2 1/4	G	D	FM	Zen	Don	Own	P	Pu	Roc	SP	SG	8	5 1/2	1130	FK	2	13	4	7	4 1/2	Ele	1
25 8.6	20 7.5	15 6.9	11.25	3.00 Own...CE	4-3 1/2 x 3 1/2	125 1500	1	I	3	2 1/4	G	D	FM	Zen	Don	Own	P	Pu	Roc	SP	SG	8	5 1/2	1130	FK	2	13	4	7	4 1/2	Ele	2
20 7.5	15 6.9	10 6.1	11.25	1.96 Cont...N62	4-2 3/4 x 3 1/2	62 1800	1	L	3	2 1/4	G	D	DR	Mar	Don	Own	P	Pu	Roc	SP	SG	6	6 1/2	1220	FK	2	13	4	7	4 1/2	Ele	3
15 6.9	10 6.1	7 5.0	11.25	3.00 Own...WD	4-4 x 4 1/2	226 1400	1	L	3	2 1/4	G	D	DR	Mar	Don	Own	P	Pu	Roc	SP	SG	6	6 1/2	1220	FK	2	13	4	7	4 1/2	Ele	4
34 4.71	34 4.71	34 4.71	12.00	1.22 ContGD157	4-3 3/4 x 4 1/2	157 2000	1	I	3	2 3/4	O		AL	Bos	Don	Own	P	Pu	Roc	SP	CH	8 1/2	6 1/4	1850	FK	5	12 1/2	5	14	4	Ele	6
34 4.71	34 4.71	34 4.71	5.00	1.69 Cont...F162	4-3 3/4 x 4 1/2	162 2400	1	I	3	2 3/4	G	K	AL	Mar	Don	Own	P	Pu	Roc	SP	CH	8 1/2	6 1/4	1800	FK	5	12 1/2	5	14	4	Ele	7
34 4.71	34 4.71	34 4.71	15.00	1.69 Cont...F140	4-3 3/4 x 4 1/2	140	1	I	3	2 1/4	G	K	AL	Mar	Don	Own	P	Pu	Roc	SP	CH	8 1/2	6 1/4	1800	FK	5	12 1/2	5	14	4	Ele	8
30 4.00	25 3.50	20 3.00	10.30	3.30 Own...VA	4-3 1/2 x 3 1/2	124 1425	1	I	3	2 1/4	G	D	Own	Mar	Don	Own	P	Pu	Roc	SP	SG	10 1/4	6	969	FK	3 1/4	10	4	28	48	HE	9
25 3.50	20 3.00	15 2.50	11.30	3.70 Own...VA	4-3 1/2 x 3 1/2	124 1425	1	I	3	2 1/4	G	D	Own	Mar	Don	Own	P	Pu	Roc	SP	SG	10 1/4	6	969	FK	3 1/4	10	4	28	48	HE	10
20 3.00	15 2.50	10 2.00	10.00	3.64 Own...VA	4-3 1/2 x 3 1/2	124 1425	1	I	3	2 1/4	G	D	Own	Mar	Don	Own	P	Pu	Roc	SP	SG	10 1/4	6	969	FK	3 1/4	10	4	28	48	HE	11
15 2.50	10 2.00	7 1.50	10.00	2.75 Own...S	4-3 3/4 x 4	165 1600	1	I	3	2 1/4	G	D	Own	Zen	Don	Own	P	Pu	TD	DO	CH	9 1/4	6 1/2	1112	FK	4	15 1/2	5	36		HE	12
10 2.00	7 1.50	5 1.00	10.00	2.75 Own...S	4-3 3/4 x 4	165 1600	1	I	3	2 1/4	G	D	Own	Zen	Don	Own	P	Pu	TD	DO	CH	9 1/4	6 1/2	1112	FK	4	15 1/2	5	36		HE	13
7 1.50	5 1.00	3 0.50	10.00	2.82 Own...S	4-3 3/4 x 4	165 1600	1	I	3	2 1/4	G	D	Own	Zen	Don	Own	P	Pu	TD	DO	CH	9 1/4	6 1/2	1112	FK	4	15 1/2	5	36		HE	14
5 1.00	3 0.50	1 0.00	10.00	3.00 Own...D	4-3 3/4 x 5 1/2	259 1200	1	I	3	2 1/4	G	D	Own	Zen	Don	Own	P	Pu	TD	DO	CH	12 1/4	7 1/4	818	FK	7 1/4	18	7	40		HE	15
3 0.50	1 0.00	0 0.00	10.00	2.75 Own...D	4-3 3/4 x 5 1/2	259 1200	1	I	3	2 1/4	G	D	Own	Zen	Don	Own	P	Pu	TD	DO	CH	12 1/4	7 1/4	818	FK	7 1/4	18	7	40		HE	16
0 0.00	0 0.00	0 0.00	10.00	2.88 Own...D	4-3 3/4 x 5 1/2	259 1200	1	I	3	2 1/4	G	D	Own	Zen	Don	Own	P	Pu	TD	DO	CH	12 1/4	7 1/4	818	FK	7 1/4	18	7	40		HE	17
0 0.00	0 0.00	0 0.00	10.00	2.75 Own...LA	4-4 1/2 x 6	403 1100	1	I	3	3	G	D	Own	Zen	Don	Own	P	Pu	TD	DO	CH	13	8 1/4	779	FK	15 1/4	31	12	68		HE	18
0 0.00	0 0.00	0 0.00	8.80	2.48 Own...LA	4-4 1/2 x 6	403 1100	1	I	3	3	G	D	Own	Zen	Don	Own	P	Pu	TD	DO	CH	13	8 1/4	779	FK	15 1/4	31	12	68		HE	19
0 0.00	0 0.00	0 0.00	12.00	3.25 Own...VA	4-3 1/2 x 3 1/2	124 1425	1	I	3	2 1/4	G	D	Own	Mar	Don	Own	P	Pu	MD	CH	SP	10 1/4	8 1/4	969	SA	3 1/4	10 1/2	5	28	48	Ele	20
0 0.00	0 0.00	0 0.00	9.89	2.87 Own...500	6-4 x 5	377 1350	1	I	7	3	O		Own	Mar	Don	Own	P	Pu	Own	SP	CH	13	8 1/4	956	FK	14	30	14	63		Ele	21
50 5.00	40 4.00	30 3.00	12.50	3.00 Cont...F140	4-3 3/4 x 4 1/2	140 1800	1	L	3	2 1/4	G	D	AL	Mar	Don	Novi	P	Pu	BB	SP	SG	10	8 1/4	1160	SF	3	12 1/2	4	8	11 1/2	Ele	22
40 4.00	30 3.00	20 2.00	13.50	4.00 Bu...4B153	4-3 3/4 x 4 1/2	153 1650	1	I	3	2 1/4	G	D	AL	M-Z	Don	Novi	P	Pu	BB	SP	SG	8 1/4	7 1/4	1336	SF	3 1/2	15	5	20		Ele	23
30 3.00	20 2.00	10 1.00	4.50	(a) Bu...6B230	6-3 3/4 x 4 1/2	229 1650	1	I	7	2 1/2	G	O	AL	Zen	Don	Novi	P	Pu	BB	SP	SG	12	8 1/4	1000	SF	4 1/4	21	6	40		Ele	24
20 2.00	10 1.00	5 0.50	4.32	(a) Bu...6B273	6-3 3/4 x 4 1/2	273 1650	1	I	7	2 1/2	G	O	AL	Zen	Don	Novi	P	Pu	BB	SP	SG	12	8 1/4	1000	SF	4 1/4	21	6	40		Ele	25
10 1.00	5 0.50	2 0.25	4.32	(a) Bu...6DA273	6-3 3/4 x 4 1/2	273 1650	1	I	7	2 1/2	G	O	AL	Bos	Don	Novi	P	Pu	BB	SP	SG	12	8 1/4	1000	DFS	4 1/4	21	6	40		Ele	26
50 5.00	40 4.00	30 3.00	4.50	5.75 10.00 2.50 Own...50	2-4 1/2 x 5 1/2	190 1250	1	I	2	2 1/4	G	K,D	DR	Mar	Don	Own	P	Pu	Own	MD	SG	9 1/4	7 1/4	1250	FK	7	15 1/2	8	24		Ele	27
40 4.00	30 3.00	20 2.00	4.50	6.25 11.00 3.00 Own...60	2-5 1/2 x 6 1/2	321 975	1	I	2	2 1/4	G	K,D,LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12	7 1/4	975	FK	8 1/4	20 1/2	8	24		Ele	28
30 3.00	20 2.00	10 1.00	4.50	6.50 11.50 3.00 Own...60	2-5 1/2 x 6 1/2	321 975	1	I	2	2 1/4	G	K,D,LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12	7 1/4	975	FK	8 1/4	20 1/2	8	24		Ele	29
20 2.00	10 1.00	5 0.50	4.50	6.50 11.50 2.75 Own...60	2-5 1/2 x 6 1/2	321 975	1	I	2	2 1/4	G	K,D,LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12	7 1/4	975	FK	8 1/4	20 1/2	8	24		Ele	30
10 1.00	5 0.50	2 0.25	4.50	6.50 11.50 3.00 Own...60	2-5 1/2 x 6 1/2	321 975	1	I	2	2 1/4	G	K,D,LP	DR	Mar	Don	Own	P	Pu	Own	MD	CH	12	7 1/4	975	DA	8 1/4	20 1/2	8	24	11 1/2	Ele	31
5 0.50	2 0.25	1 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	32
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	33
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	34
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	35
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	36
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	37
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	38
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	39
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	40
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	41
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	42
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	43
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP	DR	Mar	Don	Own	P	Pu	Own	MD	SG	12 1/2	7 1/4	975	FK	8 1/4	24 1/2	11	30		Ele	44
0 0.00	0 0.00	0 0.00	4.50	6.50 11.50 3.25 Own...70	2-5 1/2 x 6 1/2	376 1125	1	I	2	3/4	O	LP																				

WHEEL TYPE TRACTORS

Line Number	TRACTOR MAKE AND MODEL	GENERAL					DRAW-BAR		OVERALL DIMENSIONS			WHEELS				HP. RATING		Nebraska Test Number	Power Take-off	Number of Forward Speeds	Number of Reverse Speeds	Travel Speeds at Normal Governed Engine R.P.M. (M.P.H.) with Standard Wheels			Fourth	Fifth				
		Wheelbase (In.)	Minimum Turning Radius Outside (Ft.)	Ground Clearance (In.)	Shipping Weight with Rubber Tires (Lb.)	TREAD (In.)		Lateral Adjustment (In.)	Height Above Ground (In.)	Length (In.)	Width (In.)	Height—To Highest Point (In.)	Standard Equipment	STEEL Diam. and Face		TIRE SIZE		Belt	Drawbar			First	Second	Third						
						Minimum	Maximum							Front (In.)	Rear (In.)	Front (In.)	Rear (In.)													
1	Massey-Harris (Cont.)																													
2	Mustang Std.	75 1/2	NA	13	52	52	52	18 1/2	8 1/2	121	70 1/2	NA	RT					31.58	23.91	403	Op	4	1							
3	Mustang RT	82 1/2	NA	13 1/2	52	52	52	18 1/2	7 1/2	122 1/2	70 1/2	NA	RT					31.58	23.91	403	Op	4	1							
4	Mustang RS	82 1/2	NA	13 1/2	52	52	52	18 1/2	7 1/2	123 1/2	70 1/2	NA	RT					31.58	23.91	403	Op	4	1							
5	Mustang HA	87	11 1/2	13 1/2	54 1/2	54 1/2	54 1/2	21 1/2	11 1/2	134 1/2	66 1/2	75 1/2	RT					40.43	37.31	509	Op	5	1							
6	33 RT	88 1/2	12 1/2	15 1/2	52 1/2	52 1/2	52 1/2	21 1/2	12 1/2	135 1/2	79	80 1/2	RT					40.43	37.31	509	Op	5	1							
7	33 RS	88 1/2	9	15 1/2	52 1/2	52 1/2	52 1/2	21 1/2	11 1/2	135 1/2	79	80 1/2	RT					40.43	37.31	509	Op	5	1							
8	33 HA	100 1/2	13 1/2	15 1/2	52 1/2	52 1/2	52 1/2	21 1/2	11 1/2	147 1/2	79	80 1/2	RT					40.43	37.31	509	Op	5	1							
9	55 Std.	88 1/2	12	12 1/2	57 1/2	57 1/2	57 1/2	23 1/2	15 1/2	145 1/2	72 1/2	83 1/2	RT					68.20	60.45	455	Op	4	1							
10	McCormick	Cub 69	8 1/2	20 1/2	1590	40	56	23	Ad	99	64	76	RT			4.00/12	8/24	9.78	8.89	386	Op	3	1	2.13	3.13	6.50				
11	100 71	8 1/2	22	2600	40	70	19	Ad	107	78	82	RT				5.00/15	9/24	22.00	19.50	NT	Op	4	1	2.38	3.63	4.88				
12	100 HC 71	8 1/2	27	3020	44	68	19	Ad	115	70	88	RT				4.00/19	9/36	22.00	19.50	NT	Op	4	1	3.00	4.88	6.38				
13	200 82	7 1/2	23	3160	6 1/2	100		Ad	123	91	85	RT				5.00/15	10/36	25.00	22.00	NT	Op	4	1	2.50	3.88	5.13				
14	300 92	8 1/2	19	4800	8	105	26	Ad	136	97	85	Op				5.50/16	11/38	37.50	33.00	NT	Op	5	1	1.68	2.58	3.48				
15	300 HC 94	11 1/2	30	5720	60	84	30	Ad	149	86	95	RT				8.00/20	11/38	37.50	33.00	NT	Op	5	1	1.62	2.48	3.34				
16	400 96	8 1/2	22 1/2	5950	8 1/2	106	26	Ad	141	107	95	Op				6.00/16	12/38	51.00	45.00	NT	Op	5	1	1.69	2.60	3.26				
17	400 Diesel	96	8 1/2	22 1/2	6365	8 1/2	106	26	Ad	141	107	94	Op				6.00/16	12/38	48.30	43.90	NT	Op	5	1	1.69	2.60	3.26			
18	400 HC 101	12	34	6520	60	84	30	Ad	155	88	107	RT				6.00/20	13/38	51.00	45.00	NT	Op	5	1	1.70	2.62	3.28				
19	400 Diesel HC 101	12	34	6930	60	84	30	Ad	155	88	106	RT				6.00/20	13/38	48.30	43.90	NT	Op	5	1	1.70	2.62	3.28				
20	Super WD-9 83			6630	52	66	18 1/2	Ad	134	75	82	Op				7.50/18	14/34			518	Op	5	1	2.38	3.13	4.60				
21	Super WDR-9 83			7030	52	66	18 1/2	Ad	140	83 1/2	83	Op				7.50/18	15/34				Op	5	1	2.50	3.38	4.76				
22	WR-9S 83			6700	52	66	18 1/2	Ad	140	83 1/2	83	Op				7.50/18	15/34				Op	5	1	2.50	3.38	4.76				
23	Minneapolis-Moline																													
24	Industrial R	66 1/2	12	11 1/2	3650	47 1/2	62 1/2	N	16	101	59	63 1/2	RT			7.50/16	12.00/24	25.00	21.00	NT	Op	4	1	2.20	3.20	4.10				
25	U 80	12	16	5300	50 1/2	62 1/2	22	14 1/2	130 1/2	71	72	72	RT			6.00/16	12/38	50.38	45.43	NT	Op	5	1	2.70	3.90	4.50				
26	GB 82 1/2	14	14 1/2	6600	66	66	25	16 1/2	137 1/2	83	72 1/2	72 1/2	RT			7.50/18	15/34	70.00	61.00	NT	Op	5	1	2.70	3.80	4.40				
27	GBD 96 1/2	16 1/2	14 1/2	7400	66	66	25	16 1/2	151 1/2	83	72 1/2	72 1/2	RT			7.50/18	15/34	64.00	56.00	NT	Op	5	1	2.70	3.80	4.40				
28	Z 72 1/2	12	12 1/2	3750	48F	54	11 1/2	14 1/2	120 1/2	66	69	72	RT			5.50/16	11/38	37.48	33.36	NT	Op	5	1	2.40	3.60	4.60				
29	U Diesel	80	12	16	5500	57	62 1/2	22	14 1/2	130 1/2	71	72	RT			6.00/16	12/38	42.00	37.00	NT	Op	5	1	2.70	3.90	4.50				
30	UB Diesel	88	8 1/2	25	5500	54 1/2	84 1/2	22	(j)	133	83	78 1/2	RT			6.00/16	12/38	42.00	37.00	NT	Op	5	1	2.40	3.50	4.00				
31	Industrial UTIL	87 1/2	17	17 1/2	6300	68 1/2	70 1/2	N	20 1/2	135 1/2	84 1/2	74 1/2	RT			8.25/20	14.00/28	50.38	45.43	NT	Op	5	1	2.40	3.50	4.00				
32	Industrial UTI	79 1/2	16	17 1/2	6300	68 1/2	70 1/2	N	20 1/2	127 1/2	77	73 1/2	RT			8.25/20	14.00/28	50.38	45.43	NT	Op	5	1	2.40	3.50	4.00				
33	UB 88	8 1/2	25	5300	54 1/2	84 1/2	22	(j)	133	83	78 1/2	78 1/2	RT			6.00/16	12/38	50.38	45.43	520	Op	5	1	2.70	3.90	4.50				
34	UB Type E	96	8 1/2	20	5500	54 1/2	84 1/2	22	(j)	141	83	78 1/2	RT			6.00/16	12/38	42.00	37.00	NT	Op	5	1	2.70	3.90	4.50				
35	UB Type N	88	8 1/2	25	5500	54 1/2	96	22	(j)	133	84 1/2	78 1/2	RT			6.00/16	12/38	42.00	37.00	NT	Op	5	1	2.70	3.90	4.50				
36	ZB 82	8	25	3700	54	88	18 1/2	14 1/2	126 1/2	83	74	74	RT			5.50/16	11/38	37.48	33.36	NT	Op	5	1	2.40	3.60	4.60				
37	ZB Type E	90 1/2	8	19 1/2	3700	54	88	18 1/2	14 1/2	134 1/2	83	74	RT			5.50/16	11/38	37.48	33.36	NT	Op	5	1	2.40	3.60	4.60				
38	ZB Type N	82 1/2	8	19 1/2	3700	54	96	18 1/2	14 1/2	124 1/2	81	74	RT			5.50/16	11/38	37.48	33.36	NT	Op	5	1	2.40	3.60	4.60				
39	BF 78	7 1/2	26	2730	52	76	19	15 1/2	115 1/2	83	75 1/2	75 1/2	RT			5.00/15	10/28	27.00	25.00	469	Op	4	1	2.40	3.70	5.20				
40	BF 74	9	20 1/2	2880	40	68	20	110	55 1/2	75	75	75	RT			5.00/15	11/24	27.00	25.00	NT	Op	4	1	2.30	3.50	4.90				
41	Oliver																													
42	Super 55 HC 73	10	14 1/2	3050	76	76	20 1/2	Ad	120	66 1/2	53 1/2	RT				5.50/16	10/28	35.88	30.75	524	Op	6	2	1.46	2.24	3.00				
43	Super 55 D 73	10	14 1/2	3050	76	76	20 1/2	Ad	120	66 1/2	53 1/2	RT				5.50/16	10/28	34.08	28.97	526	Op	6	2	1.46	2.24	3.00				
44	RC Super 66 HC 88 1/2	8 1/2	18 1/2	2800	68	88	20 1/2	17	134	80 1/2	73 1/2	RT				5.50/15	9/38				Op	6	2	1.88	2.72	3.26				
45	RC Super 66 D 88 1/2	8 1/2	18 1/2	2850	60	88	20 1/2	17	134	80 1/2	73 1/2	RT				5.50/15	9/38				NT	Op	6	2	1.88	2.72	3.26			
46	RC Super 77 HC 90 1/2	9 1/2	18 1/2	3875	60	92 1/2	20 1/2	15 1/2	139 1/2	80 1/2	75 1/2	RT				5.50/16	11/38				Op	6	2	2.45	3.22	4.27				
47	Std. Super 77 HC 81 1/2	12 1/2	12 1/2	3398		52 1/2	20 1/2	14 1/2	129 1/2	65 1/2	69 1/2	RT				5.50/16	12/28				NT	Op	6	2	2.45	3.27	4.33			
48	Ind. Super 77 HC 81 1/2	12 1/2	12 1/2		82 1/2	69 1/2	20 1/2	14 1/2	133 1/2	78 1/2	70 1/2	RT				7.00/20	12.00/24				NT	Op	6	2	1.95	2.59	3.44			
49	RC Super 77 D 90 1/2	9 1/2	18 1/2	4067	60	92 1/2	20 1/2	15 1/2	139 1/2	80 1/2	75 1/2	RT				5.50/16	11/38				NT	Op	6	2	2.45	3.22	4.27			
50	Std. Super 77 D 81 1/2	12 1/2	12 1/2	4590		52 1/2	20 1/2	14 1/2	129 1/2	65 1/2	69 1/2	RT				5.50/16	12/26				NT	Op	6	2	2.45	3.27	4.33			
51	Ind. Super 77 D 82 1/2	12 1/2	12 1/2		52 1/2	69 1/2	20 1/2	13 1/2	133 1/2	78 1/2	70 1/2	RT				7.00/20	12.00/24				NT	Op	6	2	1.95	2.59	3.44			
52	RC Super 88 HC 93 1/2	9 1/2	18 1/2	4740	60	92 1/2	20 1/2	13 1/2	143	80 1/2	75 1/2	RT				6.00/16	12/38	58.08	49.81	525	Op	6	2	2.49	3.22	4.28				
53	Std. Super 88 HC 82 1/2	12 1/2	13	4470	54	62	20 1/2	1																						

WHEEL TYPE TRACTORS

Travel Speeds at Normal Governed Engine R.P.M. with Standard Wheels				ENGINE				FUEL		CAPACITIES										Line Number													
Fourth	Fifth	Sixth	Reverse	Make and Model	Number of Cylinders—Bore and Stroke (In.)	Piston Disp. (Cu. In.)	R.P.M. at Governed Speed	Valve Arrangement	Number of Main Bearings	Diameter of Main Bearings	Standard	Optional	Ignition—Make	Carburetor or Injector Pump—Make	Air Cleaner—Make	Governor—Make	Oiling System—Type	Cooling System—Type	Clutch—Make and Type	Final Drive—Type	Diameter (In.)	Face (In.)	Normal R.P.M.	Steering Type	Cooling System (Gal.)	Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.)	Starting Method			
				Cont. F140	4-3 1/2 x 4 1/2	140	1500	L	3	2 1/4	G	D	AL	Zen	Don	Novi	P	Pu	BB	SP	SG	9 1/2	6 1/2	3044	WS	13	13	4	8	13 1/2	Ele	1	
				Cont. F140	4-3 1/2 x 4 1/2	140	1500	L	3	2 1/4	G	D	AL	Zen	Don	Novi	P	Pu	BB	SP	SG	9 1/2	6 1/2	3044	WS	13	13	4	8	13 1/2	Ele	2	
				Cont. F140	4-3 1/2 x 4 1/2	140	1500	L	3	2 1/4	G	D	AL	Zen	Don	Novi	P	Pu	BB	SP	SG	9 1/2	6 1/2	3044	WS	13	13	4	8	13 1/2	Ele	3	
				Cont. F140	4-3 1/2 x 4 1/2	140	1500	L	3	2 1/4	G	D	AL	Zen	Don	Novi	P	Pu	BB	SP	SG	9 1/2	6 1/2	3044	WS	13	13	4	8	13 1/2	Ele	4	
				Own. E201	4-3 1/2 x 4 1/2	201	1500	L	3	2 1/4	G	D.O	AL	Mar	Don	Own	P	Pu	BB	SP	SG	13 1/2	6 1/2	3146	WS	18	19	7	48	13 1/2	Ele	5	
				Own. E201	4-3 1/2 x 4 1/2	201	1500	L	3	2 1/4	G	D.O	AL	Mar	Don	Own	P	Pu	BB	SP	SG	13 1/2	6 1/2	3146	WS	18	19	7	48	13 1/2	Ele	6	
				Own. E201	4-3 1/2 x 4 1/2	201	1500	L	3	2 1/4	G	D.O	AL	Mar	Don	Own	P	Pu	BB	SP	SG	13 1/2	6 1/2	3146	WS	18	19	7	48	13 1/2	Ele	7	
				Own. E201	4-3 1/2 x 4 1/2	201	1500	L	3	2 1/4	G	D.O	AL	Mar	Don	Own	P	Pu	BB	SP	SG	13 1/2	6 1/2	3146	WS	18	19	7	48	13 1/2	Ele	8	
				Own. J382	4-4 1/2 x 6	382	1350	L	3	3 1/4	G	D,L,P,O	AL	Zen	Don	Own	P	Pu	BB	SP	SG	16	8 1/2	3059	CL	28	27 1/2	9	68	13 1/2	Ele	9	
				2.38 Own. C60	4-2 1/2 x 2 3/4	60	1600	L	3	2 1/4	G	N	.....	Own	Don	Own	P	TS	RA	.....	SG	9	4 1/2	1322	WG	2 1/2	7 1/2	3	2	1 1/2	Op	10
10.00				2.88 Own. C123	4-3 1/2 x 4	123	1400	L	3	2 1/4	G	D,K	.....	CMZ	Don	Own	P	Pu	RA	.....	SG	8 1/2	6	1157	WG	3 1/2	11	5	5	1 1/2	Ele	11
13.25				3.75 Own. C123	4-3 1/2 x 4	123	1400	L	3	2 1/4	G	D,K	.....	CMZ	Don	Own	P	Pu	RA	.....	SG	8 1/2	6	1157	WG	3 1/2	11	5	5	1 1/2	Ele	12
10.63				3.13 Own. C123	4-3 1/2 x 4	123	1650	L	3	2 1/4	G	D,K	.....	CMZ	Don	Own	P	Pu	RA	.....	SG	8 1/2	6	1363	WG	3 1/2	11	5	20	1 1/2	Ele	13
4.45 10.87				2.10 Own. C169	4-3 1/2 x 4 1/2	169	1750	L	3	2 1/4	G	D,K	.....	Own	Don	Own	P	Pu	Roc.	.....	SG	9 1/2	7 1/2	1081	WG	4 1/2	17	6	28	1 1/2	Ele	14
4.28 10.45				2.02 Own. C169	4-3 1/2 x 4 1/2	169	1750	L	3	2 1/4	G	D,K	.....	Own	Don	Own	P	Pu	Roc.	.....	SG	9 1/2	7 1/2	1081	WG	4 1/2	17	6	28	1 1/2	Ele	15
4.53 11.27				2.25 Own. C264	4-4 x 5 1/2	264	1450	L	3	2 1/4	G	D,K	.....	Own	Don	Own	P	Pu	O-R	.....	SG	11	7 1/2	899	WG	6 1/2	18	8	48	1 1/2	Ele	16
4.53 11.27				2.25 Own. C264	4-4 x 5 1/2	264	1450	L	3	2 1/4	G	D,K	.....	Own	Don	Own	P	Pu	O-R	.....	SG	11	7 1/2	899	WG	6 1/2	18	8	48	1 1/2	Ele	17
4.57 11.36				2.27 Own. C264	4-4 x 5 1/2	264	1450	L	3	2 1/4	G	D,K	.....	Own	Don	Own	P	Pu	O-R	.....	SG	11	7 1/2	899	WG	6 1/2	18	8	48	1 1/2	Ele	18
5.50 15.75				2.88 Own. D350	4-4 1/2 x 5 1/2	350	1500	L	3	2 1/4	G	N	.....	Own	Don	Own	P	Pu	O-R	.....	SG	14	8 1/2	707	CL	9 1/2	35	11	40	1 1/2	Ele	19
5.75 16.75				3.13 Own. D350	4-4 1/2 x 5 1/2	350	1500	L	3	2 1/4	G	N	.....	Own	Don	Own	P	Pu	Roc.	.....	SG	14	8 1/2	707	CL	9 1/2	35	11	40	1 1/2	Ele	20
5.75 16.75				3.13 Own. C335	4-4 1/2 x 5 1/2	335	1500	L	3	2 1/4	G	N	.....	Own	Don	Own	P	Pu	Roc.	.....	SG	14	8 1/2	707	CL	9 1/2	35	11	40	1 1/2	Ele	21
				3.13 Own. C335	4-4 1/2 x 5 1/2	335	1500	L	3	2 1/4	G	N	.....	Own	Don	Own	P	Pu	Roc.	.....	SG	14	8 1/2	707	CL	9 1/2	35	11	40	1 1/2	Ele	22
11.50				2.50 Own. EE	4-3 1/2 x 4	165	1500	Lh	2	3	G	D	DR	Mar	Uni	Own	P	Pu	Roc.	.....	SG	12 1/4	6	1000	FK	3 1/2	14	7	18	1 1/2	HE	23
6.50 15.10				2.10 Own. 283B	4-4 1/2 x 5	283	1300	L	3	2 1/4	G	D,L,P	DR	Mar	Uni	Own	P	Pu	TD	.....	SG	16	7	741	FK	6	21 1/2	9	52	1 1/2	Ele	24
6.30 14.70				2.10 Own. 403	4-4 1/2 x 6	403	1300	L	3	2 1/4	G	TF,L,P	DR	Mar	Don	Own	P	Pu	TD	.....	SG	16	7	741	FK	12	29	9	52	1 1/2	Ele	25
6.30 14.70				2.10 Own. D425	4-4 1/2 x 5	425	1300	L	3	2 1/4	G	O	.....	Don	Don	Own	P	Pu	TD	.....	SG	16	7	741	FK	12	29	14	52	1 1/2	Ele	26
6.30 13.10				2.20 Own. 206G	4-3 1/2 x 5	201	1500	Lh	3	(h)	G	D,L,P	DR	Mar	Don	Own	P	Pu	TD	.....	SG	15 1/2	7	788	FK	3 1/2	19	7	28	1 1/2	HE	27
6.50 15.10				2.10 Own. D283	4-4 1/2 x 5	284	1300	L	3	2 1/4	G	O	.....	Don	Don	Own	P	Pu	TD	.....	SG	16	7	741	FK	6	21 1/2	9	52	1 1/2	Ele	28
6.50 15.10				2.10 Own. D283	4-4 1/2 x 5	284	1300	L	3	2 1/4	G	O	.....	Don	Don	Own	P	Pu	TD	.....	SG	16	7	741	FK	6	21 1/2	9	52	1 1/2	Ele	29
5.80 13.50				1.90 Own. 283B	4-4 1/2 x 5	283	1300	L	3	2 1/4	G	D	DR	Mar	Uni	Own	P	Pu	Roc.	.....	SG	16	7	741	FK	6	21 1/2	9	52	1 1/2	HE	30
5.80 13.50				1.90 Own. 283B	4-4 1/2 x 5	283	1300	L	3	2 1/4	G	D	DR	Mar	Uni	Own	P	Pu	Roc.	.....	SG	16	7	741	FK	6	21 1/2	9	52	1 1/2	HE	31
5.80 15.10				2.10 Own. 283B	4-4 1/2 x 5	283	1300	L	3	2 1/4	G	D,L,P	DR	Mar	Uni	Own	P	Pu	Roc.	.....	SG	16	7	741	FK	6	21 1/2	9	52	1 1/2	Ele	32
6.50 15.10				2.10 Own. D283	4-4 1/2 x 5	284	1300	L	3	2 1/4	G	O	.....	Don	Don	Own	P	Pu	Roc.	.....	SG	16	7	741	FK	6	21 1/2	9	52	1 1/2	Ele	33
6.50 15.10				2.10 Own. D283	4-4 1/2 x 5	284	1300	L	3	2 1/4	G	O	.....	Don	Don	Own	P	Pu	Roc.	.....	SG	16	7	741	FK	6	21 1/2	9	52	1 1/2	Ele	34
6.30 13.10				2.20 Own. 206G	4-3 1/2 x 5	207	1500	Lh	3	(h)	G	D,L,P	DR	Mar	Don	Own	P	Pu	Roc.	.....	SG	15 1/2	7	788	FK	3 1/2	19	7	28	1 1/2	Ele	35
6.30 13.10				2.20 Own. 206G	4-3 1/2 x 5	207	1500	Lh	3	(h)	G	D,L,P	DR	Mar	Don	Own	P	Pu	Roc.	.....	SG	15 1/2	7	788	FK	3 1/2	19	7	28	1 1/2	Ele	36
13.00				2.80 HelixBSL	4-3 1/2 x 4	133	1800	L	3	2	G	K	DR	Mar	Novi	P	Pu	Roc.	.....	SG	10	6 1/2	1160	WG	2 1/2	12	5	9	1 1/2	Ele	37	
12.50				2.70 HelixBSL	4-3 1/2 x 4	133	1800	L	3	2	G	K	DR	Mar	Novi	P	Pu	Roc.	.....	SG	10	6 1/2	1160	WG	2 1/2	12	5	9	1 1/2	Ele	38	
4.62 5.54 11.41				* Own. 55HC	4-3 1/2 x 3 1/2	144	1600	L	3	2 1/4	G	O	DR	M-C	Don	Own	PS	Pu	Au.	SG	9	6 1/2	1319	FK	3 1/2	13	4	20	1 1/2	Ele	40
4.62 5.54 11.41				* Own. 55D	4-3 1/2 x 3 1/2	144	1600	L	3	2 1/4	G	O	DR	M-C	Don	Own	PS	Pu	BB	SG	9	6 1/2	1319	FK	3 1/2	13	4	20	1 1/2	Ele	41
4.71 5.54 9.58				* Own. 66HC	4-3 1/2 x 3 1/2	144	1600	L	3	2 1/4	G	O	DR	M-C	Don	Own	PS	Pu	BB	SG	9 1/2	7 1/2	1232	SA	3	12 1/2	4	18	1 1/2	Ele	42
4.71 5.54 9.58				* Own. 66D	4-3 1/2 x 3 1/2	144	1600	L	3	2 1/4	G	O	DR	M-C	Don	Own	PS	Pu	BB	SG	9 1/2	7 1/2	1232	SA	3	12 1/2	4	18	1 1/2	Ele	43
5.62 6.58 11.47				* Own. 77HC	6-3 1/2 x 3 1/2	216	1600	L	4	2 1/4	G	O	DR	M-C	Don	Own	PS	Pu	BB	SG	11 1/2	7 1/2	992	FK	4 1/2	16 1/2	5	18	1 1/2	Ele	44
5.70 6.68 11.65				* Own. 77HC	6-3 1/2 x 3 1/2	216	1600	L	4	2 1/4	G	O	DR	M-C	Don	Own	PS	Pu	BB	SG	11 1/2	7 1/2	992	FK	4 1/2	16 1/2	5	18	1 1/2	Ele	45
4.52 9.06 15.80				* Own. 77HC	6-3 1/2 x 3 1/2	216	1600	L	4	2 1/4	G	O	DR	M-C	Don	Own	PS	Pu	BB	SG	11 1/2	7 1/2	992	FK	4 1/2	16 1/2	5	18	1 1/2	Ele	46
5.62 6.58 11.47				* Own. 77D	6-3 1/2 x 3 1/2	216	1600	L	4	2 1/4	O	O	.....	Don	Don	Own	PS	Pu	BB	.....	SG	11 1/2	7 1/2	992	FK	4 1/2	17	5	18	1 1/2	Ele	47
5.70 6.68 11.65				* Own. 77D	6-3 1/2 x 3 1/2	216	1600	L	4	2 1/4	O	O	.....	Don	Don	Own	PS	Pu	BB	.....	SG	11 1/2	7 1/2	992	FK	4 1/2	17	5	18	1 1/2	Ele	48
4.52 9.06 15.80				* Own. 77D	6-3 1/2 x 3 1/2	216	1600	L	4	2 1/4	O	O	.....	Don																		

TUNE-UP DATA ON 1950-1955 CARS

MAKE AND MODEL	No. of Cylinders, Bore and Stroke (In.)	VALVES				IGNITION				Crankcase Capacity (Qts.)	Cooling System Capacity (Qts.)	Compression Ratio (Standard Head)	CRANK-PIN		FRONT AXLE						
		Inlet Tapett Clearance for Valve Timing (In.)	Intake Valve Opens Before or After T.C.	Operating Tapett Clearance (In.)		Spark Plug		Timing					Diameter (In.)	Length (In.)	Caster (Deg.)	Camber (Deg.)	Toe-In (In.)	Kingpin Inclination (Deg.)			
				Intake	Exhaust	Make and Model	Gap (In.)	Spark Occurs—No. Deg. Before or After T.C.	Breaker Gap (In.)												
BUICK																					
40.....1950	8-3 1/2 x 4 1/2	.015	13B	.015H	.015H	AC-48	.025	4B	.015	6 1/2	13	6.60	2 1/4	1 1/2	1/4 P to 1 1/2 P	1/4 P to 1 1/2 P	1/4 to 1 1/4	4 1/4			
50.....1950	8-3 1/2 x 4 1/2		13B			AC-48	.025	4B	.015	6 1/2	13	6.90	2 1/4	1 1/2	1/4 P to 1 1/2 P	1/4 P to 1 1/2 P	1/4 to 1 1/4	4 1/4			
70.....1950	8-3 1/2 x 4 1/2		14B			AC-48	.025	6B	.015	8 1/2	12	7.20	2 1/4	1 1/2	1/4 P to 1 1/2 P	1/4 P to 1 1/2 P	1/4 to 1 1/4	4 1/4			
40.....1951	8-3 1/2 x 4 1/2		13B			AC-48X	.025	4B	.015	6 1/2	12	6.60	2 1/4	1 1/2	1/4 P to 1 1/2 P	1/4 P to 1 1/2 P	1/4 to 1 1/4	4 1/4			
50.....1951	8-3 1/2 x 4 1/2		13B			AC-48X	.025	4B	.015	6 1/2	12	6.90	2 1/4	1 1/2	1/4 P to 1 1/2 P	1/4 P to 1 1/2 P	1/4 to 1 1/4	4 1/4			
70.....1951	8-3 1/2 x 4 1/2		14B			AC-48X	.025	6B	.015	8 1/2	12	7.20	2 1/4	1 1/2	1/4 P to 1 1/2 P	1/4 P to 1 1/2 P	1/4 to 1 1/4	4 1/4			
40.....1952	8-3 1/2 x 4 1/2	.004	13B	.015H	.015H	AC-48X	.026	4B	.018	5 1/2	12	6.60	2 1/4	1 1/2	1/4 P to 1 1/2 P	1/4 P to 1 1/2 P	1/4 to 1 1/4	4 1/4			
50.....1952	8-3 1/2 x 4 1/2	.004	14B	AA	AA	AC-48X	.026	4B	.018	7 1/2	12	6.90	2 1/4	1 1/2	1/4 P to 1 1/2 P	1/4 P to 1 1/2 P	1/4 to 1 1/4	4 1/4			
70.....1952	8-3 1/2 x 4 1/2	.004	14B	AA	AA	AC-48X	.026	6B	.018	7 1/2	18	7.50	2 1/4	1 1/2	1/4 P to 1 1/2 P	1/4 P to 1 1/2 P	1/4 to 1 1/4	4 1/4			
40.....1953	8-3 1/2 x 4 1/2	.004	13B	.015H	.015H	AC-48X	.025	4B	.018	5 1/2	12	7.00	2 1/4	1 1/2	1/4 P to 1 1/2 P	1/4 P to 1 1/2 P	1/4 to 1 1/4	4 1/4			
50.....1953	8-4 x 3 1/2	.004	25B	AA	AA	AC-44-5	.032	5B	.016	6 1/2	18	8.00	2 1/4	1 1/2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	1/4 to 1 1/4	4 1/4			
70.....1953	8-4 x 3 1/2	.004	25B	AA	AA	AC-44-5	.032	5B	.016	6 1/2	18	8.50	2 1/4	1 1/2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	1/4 to 1 1/4	4 1/4			
40.....1954	8-3 1/2 x 3 1/2	.004	25B	AA	AA	AC-44-5	.033	5B	.015	6 1/2	18	7.20	2 1/4	1 1/2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	0 to 1 1/4	0			
50, 60.....1954	8-4 x 3 1/2	.004	25B	AA	AA	AC-44-5	.033	5B	.015	6 1/2	18	8.00	2 1/4	1 1/2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	0 to 1 1/4	0			
70.....1954	8-4 x 3 1/2	.004	25B	AA	AA	AC-44-5	.033	5B	.015	6 1/2	18	8.50	2 1/4	1 1/2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	0 to 1 1/4	0			
40.....1955	8-3 1/2 x 3 1/2	.004	25B	AA	AA	AC-44-5	.033	5B	.015	6 1/2	18	8.40	2 1/4	1 1/2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	0 to 1 1/4	0			
50, 60.....1955	8-4 x 3 1/2	.004	25B	AA	AA	AC-44-5	.033	5B	.015	6 1/2	18	9.00	2 1/4	1 1/2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	0 to 1 1/4	0			
70.....1955	8-4 x 3 1/2	.004	28B	AA	AA	AC-44-5	.033	5B	.015	6 1/2	18	9.00	2 1/4	1 1/2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	0 to 1 1/4	0			
CADILLAC																					
60, 61, 62, 75.....1950	8-3 1/2 x 3 3/8	.001	24B	AA	AA	AC-46-5	.035	5B	.015	5	18	7.50	2 1/4	2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	1/4 to 1 1/4	5 5/8			
60, 61, 62, 75.....1951	8-3 1/2 x 3 3/8	.001	24B	AA	AA	AC-46-5	.035	5B	.015	5	18	7.50	2 1/4	2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	1/4 to 1 1/4	5 5/8			
60, 62, 75.....1952	8-3 1/2 x 3 3/8	.001	14B	AA	AA	AC-48	.035	5B	.013	5	19	7.50	2 1/4	2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	1/4 to 1 1/4	5 5/8			
60, 62, 75.....1953	8-3 1/2 x 3 3/8	.001	22B	AA	AA	AC-46-5	.035	2 1/2 B	.013	5	19 3/4	8.25	2 1/4	2	1/4 N to 1 1/2 P	1/4 N to 1 1/2 P	1/4 to 1 1/4	5 5/8			
60, 62, 75.....1954	8-3 1/2 x 3 3/8	.001	22B	AA	AA	AC-46-5	.035	2 1/2 B	.019	5	19 3/4	8.25	2 1/4	2	0 to 1N	1/4 N to 1 1/2 P	1/4 to 1 1/4	5 5/8			
60, 62, 75.....1955	8-3 1/2 x 3 3/8	.001	19B	AA	AA	AC-44-5	.035	2 1/2 B	.019	5	18	9.00	2 1/4	2	0 to 1N	1/4 N to 1 1/2 P	1/4 to 1 1/4	5 5/8			
CHEVROLET																					
HJ, HK.....1950	6-3 1/2 x 3 3/8	.006H	1B	.006H	.013H	AC-46-5	.035	5B	.021	5 1/2	15	6.60	2 1/4	1 1/2	0 to 1P	0 to 1P	0 to 1 1/4	4			
JJ, JK.....1951	6-3 1/2 x 3 3/8	.006H	1B	.006H	.013H	AC-46-5	.035	5B	.021	5 1/2	15	6.60	2 1/4	1 1/2	0 to 1P	0 to 1P	0 to 1 1/4	4			
2100.....1951	6-3 1/2 x 3 3/8	AA	16B	AA	AA	AC-46-5	.035	5B	.021	5 1/2	15	6.70	2 1/4	1 1/2	0 to 1P	0 to 1P	0 to 1 1/4	4			
1500.....1952	6-3 1/2 x 3 3/8	.006H	1B	.006H	.013H	AC-46-5	.035	5B	.018	5	15	6.60	2 1/4	1 1/2	0 to 1P	0 to 1P	0 to 1 1/4	4			
2100.....1952	6-3 1/2 x 3 3/8	.006H	16B	AA	AA	AC-46-5	.035	5B	.018	5	15	6.70	2 1/4	1 1/2	0 to 1P	0 to 1P	0 to 1 1/4	4			
1500.....1953	6-3 1/2 x 3 3/8	.006H	1A	.006H	.013H	AC-44-5	.036	5B	.015	5	15	7.10	2 1/4	1 1/2	0 to 1P	0 to 1P	0 to 1 1/4	4			
2100, 2400.....1953	6-3 1/2 x 3 3/8	.006H	16B	AA	AA	AC-44-5	.036	5B	.015	5	15	7.50	2 1/4	2	0 to 1P	0 to 1P	0 to 1 1/4	4			
1500, 2100, 2400.....1954	6-3 1/2 x 3 3/8	.006H	1A	.010H	.020H	AC-44-5	.036	2A	.015	5	16	7.50	2 1/4	1	0 to 1P	0 to 1P	0 to 1 1/4	4			
2900.....1954-55	6-3 1/2 x 3 3/8	.006H	19 1/2 B	.010H	.020H	AC-44-5	.036	2A	.016	5	17 1/4	8.00	2 1/4	1	0 to 1P	0 to 1P	0 to 1 1/4	4			
1500, 2100, 2400.....1955	6-3 1/2 x 3 3/8	.006H	1A	.006H	.013H	AC-44-5	.036	TC	.019	5	16	7.50	2 1/4	1	1/4 N to 1 1/2 P	0 to 1P	1/4 to 1 1/4	4			
1500, 2100, 2400, 2900.....1955	8-3 1/2 x 3 3/8	.006H	12B	AA	AA	AC-44-5	.036	4B	.019	4	16	8.00	2 1/4	1 1/2	1/4 N to 1 1/2 P	0 to 1P	1/4 to 1 1/4	4			
CHRYSLER																					
C48.....1950	6-3 1/2 x 4 1/2	.014	12B	.008H	.010H	AL-AR5	.035	TC	.020	17	7.00	2 1/4	1 1/2	1N to 3N	0 to 1/2 P	0 to 1 1/4	5 1/2				
C49, C50.....1950	6-3 1/2 x 4 1/2	.011	12B	.008H	.010H	AL-AR5	.035	TC	.018	21	7.25	2 1/4	1 1/2	1N to 3N	0 to 1/2 P	0 to 1 1/4	7				
C51.....1951	6-3 1/2 x 4 1/2	.014	12B	.008H	.010H	AL-AR8	.035	2B	.020	5	15	7.00	2 1/4	1 1/2	1N to 3N	1/4 N to 1 1/2 P	0 to 1 1/4	5 1/2			
C52, C53, C54.....1951	6-3 1/2 x 3 3/8	AA	15B	AA	AA	AL-AR6	.035	TC	.016	5	25	7.50	2 1/4	2	1N to 3N	1/4 N to 1 1/2 P	0 to 1 1/4	7 1/4			
C51.....1952	6-3 1/2 x 4 1/2	.014C	12B	.008H	.010H	AL-AR8	.035	2B	.019	5	15	7.00	2 1/4	1 1/2	1N to 3N	1/4 N to 1 1/2 P	0 to 1 1/4	5 1/2			
C52, C53, C54, C55.....1952	6-3 1/2 x 3 3/8	VTS	15B	AA	AA	AL-4S-140	.035	4B	.017	5	25	7.50	2 1/4	1 1/2	1N to 3N	1/4 N to 1 1/2 P	0 to 1 1/4	7 1/4			
C56, C58, C59.....1953	6-3 1/2 x 3 3/8	VTS	15B	AA	AA	AL-4S-140	.035	4B	.017	5	25	7.50	2 1/4	1 1/2	1N to 3N	1/4 N to 1 1/2 P	0 to 1 1/4	7 1/4			
C60.....1953	6-3 1/2 x 4 1/2	.014	12B	.008H	.010H	AL-AR8	.035	TC	.019	5	15	7.00	2 1/4	1 1/2	1N to 3N	1/4 N to 1 1/2 P	0 to 1 1/4	5 1/2			
C61.....1954	6-3 1/2 x 4 1/2	.014	12B	.008H	.010H	AL-4S-140	.035	TC	.019	5	15	7.00	2 1/4	1 1/2	1N to 3N	1/4 N to 1 1/2 P	0 to 1 1/4	5 1/2			
C63, C64, C66.....1954	8-3 1/2 x 3 3/8	VTS	15B	AA	AA	AL-4GS-150	.035	4B	.017	5	24	8.00	2 1/4	1 1/2	1N to 3N	1/4 N to 1 1/2 P	0 to 1 1/4	7 1/4			
C67.....1955	8-3 1/2 x 3 3/8	VTS	15B	AA	AA	AL-4S-165	.035	6B	.017	5	25	8.50	2 1/4	1 1/2	0 to 2N	1/4 N to 1 1/2 P	0 to 1 1/4	5 1/2			
C68, C69.....1955	8-3 1/2 x 3 3/8	VTS	15B	AA	AA	AL-4GS-175	.035	6B	.017	5	25	8.50	2 1/4	1 1/2	0 to 2N	1/4 N to 1 1/2 P	0 to 1 1/4	5 1/2			
C70.....1955	8-3 1/2 x 3 3/8	VTS	15B	AA	AA	AL-4GS-175	.035	6B	.017	5	25	8.50	2 1/4	1 1/2	0 to 2N	1/4 N to 1 1/2 P	0 to 1 1/4	5 1/2			
C300.....1955	8-3 1/2 x 3 3/8	.012	35B	.015	.024	AL-4GS-200	.035	10B	.017	5	25	8.50	2 1/4	1 1/2	0 to 2N	1/4 N to 1 1/2 P	0 to 1 1/4	5 1/2			
CROSLEY																					
CD.....1950	4-2 1/2 x 2 1/4		5B	.005C	.008C	AL-AN7E	.025	2B	.020	2 3/4	4	8.00	1 3/8	7/8 P	2P	1/4 to 1 1/4	6 1/4				
CD, VC.....1951	4-2 1/2 x 2 1/4		5B	.005C	.008C	Ch-J-8	.025	12B	.020	2 3/4	4	8.00	1 3/8	7/8 P	2P	1/4 to 1 1/4	6 1/4				
CD.....1952	4-2 1/2 x 2 1/4	.005	5B	.005C	.008C	AL-AN7E	.025	12B	.020	2	4	8.00	1 3/8	7/8 P	2P	1/4 to 1 1/4	6 1/4				
VC.....1952	4-2 1/2 x 2 1/4	.005	5B	.005C	.008C	AL-AN7E	.025	12B	.020	2	4	8.00	1 3/8	7/8 P	2P	1/4 to 1 1/4	6 1/4				
DE SOTO																					
S14.....1950	6-3 1/2 x 4 1/2	.014C	12B	.008H	.010H	AL-AR5	.035	TC	.020	17	7.00	2 1/4	1 1/2	1N to 3N	0 to 1/2 P						

TUNE-UP DATA ON 1950-1955 CARS

MAKE AND MODEL	No. of Cylinders, Bore and Stroke (In.)	VALVES			IGNITION				Crankcase Capacity (Qts.)	Cooling System Capacity (Qts.)	Compression Ratio (Standard Head)	CRANK-PIN		FRONT AXLE						
		Inlet Tapet Clearance for Valve Timing (In.)	Deg. Intake Valve Opens Before or After T.C.	Operating Tappett Clearance (In.)	Spark Plug		Timing					Diameter (In.)	Length (In.)	Caster (Deg.)	Camber (Deg.)	Toe-In (In.)	Kingpin Inclination (Deg.)			
					Make and Model	Gap (In.)	Spark Occurs—No. Deg. Before or After T.C.	Breaker Gap (In.)												
FORD—cont.																				
V8	1954	8-3 1/2 x 3 1/2	.015††	8B	.019H	.019H	Ch-H-10	.035	6B	.015	5	20	7.20	2 1/2	1 1/2	0 to 1P	0 to 1P			
6	1955	6-3 1/2 x 3 1/2	ER	13B	.015H	.019H	Ch-870	.034	3B	.025	4	15	7.50	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
V8	1955	8-3 1/2 x 3 1/2	ER	12B	.019H	.019H	Ch-870	.034	6B	.015	5	19	7.60	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
40A, 40B	1955	8-3 1/2 x 3 1/2	.016††	12B	.018H	.018H	Ch-870	.034	6B	.015	5	20	8.10	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
FRAZER																				
1951	1950	6-3 1/2 x 4 1/2	.014	10B	.014	.014	AL-A5	.032	4B	.020	5 1/2	13 1/2	7.30	2 1/2	1 1/2	1N to 1P	0 to 1/2 N			
515, 516	1951	6-3 1/2 x 4 1/2	.014	10B	.014C	.014C	AL-A5G	.032	4B	.020	5 1/2	13	7.30	2 1/2	1 1/2	1N to 1P	0 to 1/2 P			
HENRY J																				
513	1951	4-3 1/2 x 4 1/2	.020	9B	.016	.016	AL-AN7	.030	TC	.020	4	10 1/2	7.00	1 1/2	1 1/2	1N to 1P	1/2 P to 1P			
514	1951	6-3 1/2 x 3 1/2	.020	5B	.016	.016	AL-AN7	.030	TC	.020	5	9	7.00	1 1/2	1 1/2	1N to 1P	1/2 P to 1P			
515	1952	4-3 1/2 x 4 1/2	.020	9B	.016	.016	AL-AN7	.030	TC	.020	5	10 1/2	7.00	1 1/2	1 1/2	1N to 1P	1/2 P to 1P			
516	1952	6-3 1/2 x 3 1/2	.020	5B	.016	.016	AL-AN7	.030	TC	.020	5	9	7.00	1 1/2	1 1/2	1N to 1P	1/2 P to 1P			
517	1953	4-3 1/2 x 4 1/2	.020	9B	.016C	.016C	AL-A7	.030	5B	.022	4	10 1/2	7.00	1 1/2	1 1/2	1N to 1P	1/2 P to 1P			
518	1953	6-3 1/2 x 3 1/2	.020	5B	.016C	.016C	AL-A7	.030	TC	.022	5	9 1/2	7.00	1 1/2	1 1/2	1N to 1P	1/2 P to 1P			
519	1954	4-3 1/2 x 4 1/2	.020	9B	.016C	.016C	AL-A7	.030	5B	.022	4	10 1/2	7.00	1 1/2	1 1/2	1N to 1P	1/2 P to 1P			
520	1954	6-3 1/2 x 3 1/2	.020	5B	.016C	.016C	AL-A7	.030	5B	.022	5	9 1/2	7.00	1 1/2	1 1/2	1N to 1P	1/2 P to 1P			
HUDSON																				
500	1950	6-3 1/2 x 3 1/2		7 1/2 B	.008H	.010H	Ch-J-7	.032	TC	.020	7 1/2	18 1/2	6.70	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
501, 502	1950	6-3 1/2 x 3 1/2		7 1/2 B	.008H	.010H	Ch-H-8	.038	TC	.020	7 1/2	19	6.70	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
503, 504	1950	8-3 1/2 x 4 1/2		10 1/2 B	.008H	.010H	Ch-H-8	.038	TC	.017	8	18	6.70	1 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
4A	1951	6-3 1/2 x 3 1/2		7 1/2 B	.008H	.010H	Ch-H-8	.032	TC	.020	7 1/2	18 1/2	6.70	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
5A, 6A	1951	6-3 1/2 x 4 1/2		7 1/2 B	.008H	.010H	Ch-H-8	.032	TC	.020	7 1/2	18 1/2	6.70	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
7A	1951	6-3 1/2 x 4 1/2		7 1/2 B	.008H	.010H	Ch-H-8	.032	TC	.020	7 1/2	18 1/2	7.20	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
8A	1951	8-3 1/2 x 4 1/2		10 1/2 B	.008H	.010H	Ch-H-8	.032	TC	.017	8	18 1/2	6.70	1 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
4B	1952	6-3 1/2 x 3 1/2	.008	27B	.008H	.010H	Ch-H-8	.032	TC	.020	7	18 1/2	6.70	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
5B, 6B	1952	6-3 1/2 x 4 1/2	.008	27B	.008H	.010H	Ch-H-8	.032	TC	.020	7	18 1/2	6.70	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
7B	1952	6-3 1/2 x 4 1/2	.008	27B	.008H	.010H	Ch-H-11	.032	TC	.020	7	18 1/2	7.20	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
8B	1952	8-3 1/2 x 4 1/2	.008	10 1/2 B	.008H	.010H	Ch-H-8	.032	TC	.017	7	18 1/2	6.70	1 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
4C	1953	6-3 1/2 x 3 1/2	.008	26 1/2 B	.008H	.010H	Ch-H-8	.032	TC	.020	7	18 1/2	6.70	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
5C	1953	6-3 1/2 x 4 1/2	.008	26 1/2 B	.008H	.010H	Ch-H-8	.032	TC	.020	7	18 1/2	6.70	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
7C	1953	6-3 1/2 x 4 1/2	.008	26 1/2 B	.008H	.010H	Ch-H-11	.032	TC	.020	7	18 1/2	7.20	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
1D, 2D, 3D	1954	6-3 1/2 x 4 1/2	.010	26 1/2 B	.010H	.012H	Ch-H-10	.032	TC	.020	5	15	7.50	1 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
4D	1954	6-3 1/2 x 3 1/2	.008	33 1/2 B	.008H	.010H	Ch-H-10	.032	TC	.020	7	18 1/2	7.00	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
5D	1954	6-3 1/2 x 4 1/2	.008	33 1/2 B	.008H	.010H	Ch-H-10	.032	TC	.020	7	18 1/2	7.00	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
7D	1954	6-3 1/2 x 4 1/2	.008	33 1/2 B	.008H	.010H	Ch-H-11	.032	TC	.020	7	18 1/2	7.50	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
35540	1955	6-3 1/2 x 4 1/2	.010H	26 1/2 B	.010H	.012H	Ch-H-10	.032	TC	.020	5	13	7.50	1 1/2	1 1/2	0 to 1 1/2 P	1/2 N to 1 1/2 P			
35560	1955	6-3 1/2 x 4 1/2	.010	33 1/2 B	.010H	.012H	Ch-H-11	.030	TC	.020	7	18 1/2	7.50	2 1/2	1 1/2	0 to 1 1/2 P	1/2 N to 1 1/2 P			
35580	1955	8-3 1/2 x 3 1/2	NU	14B	AA	AA	AL-AG-5	.035	5B	.016	5	20	8.25	2 1/2	1 1/2	0 to 1 1/2 P	1/2 N to 1 1/2 P			
KAISER																				
491, 492	1950	6-3 1/2 x 4 1/2	.014	10B	.014	.014	AL-A5	.032	4B	.020	5 1/2	13 1/2	7.30	2 1/2	1 1/2	1N to 1P	0 to 1/2 N			
511, 512	1951	6-3 1/2 x 4 1/2	.014	10B	.014C	.014C	AL-A5	.032	4B	.020	5 1/2	13 1/2	7.30	2 1/2	1 1/2	1N to 1P	0 to 1/2 P			
511, 512	1952	6-3 1/2 x 4 1/2	.014	10B	.014C	.014C	AL-A5	.032	4B	.020	5 1/2	13 1/2	7.30	2 1/2	1 1/2	1N to 1P	0 to 1/2 P			
531, 532	1953	6-3 1/2 x 4 1/2	.018	10B	.014C	.014C	AL-A7	.030	4B	.022	5	12 1/2	7.30	2 1/2	1 1/2	1N to 1P	0 to 1/2 P			
542	1954	6-3 1/2 x 4 1/2	.018	10B	.014C	.014C	AL-A7	.030	4B	.016	5	12 1/2	7.30	2 1/2	1 1/2	1N to 1P	0 to 1/2 P			
545	1954	6-3 1/2 x 4 1/2	.018	10B	.014C	.014C	AL-A7	.030	4B	.022	5	12 1/2	7.30	2 1/2	1 1/2	1N to 1P	0 to 1/2 P			
LINCOLN																				
DEL, DEH	1950	8-3 1/2 x 4 1/2	.008	5B	AA	AA	Ch-H-10	.025	4B	.015	6	33	7.00	2 1/2	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
1EL, 1EH	1951	8-3 1/2 x 4 1/2	.008	5B	AA	AA	Ch-H-10	.031	4B	.015	6 1/2	34 1/2	7.00	2 1/2	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
V8	1952	8-3 1/2 x 3 1/2		18B	AA	AA	Ch-H-10	.031	3B	.015	5	22 1/2	7.50	2 1/2	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
V8	1953	8-3 1/2 x 3 1/2	AA	18B	AA	AA	Ch-H-10	.036	3B	.015	5	22 1/2	8.00	2 1/2	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
V8	1954	8-3 1/2 x 3 1/2		18B	AA	AA	Ch-H-10	.035	3B	.015	5	22 1/2	8.00	2 1/2	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
73A, 73B	1955	8-3 1/2 x 3 1/2	ER	8B	AA	AA	Ch-870	.034	5B	.015	5	23	8.50	2 1/2	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
MERCURY																				
1CM	1950	8-3 1/2 x 4	.015	10B	.011C	.015C	Ch-H-10	.025	2B	.015	6	21	6.80	2 1/2	1 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
1CM	1951	8-3 1/2 x 4	.015	10B	.012C		Ch-H-10	.031	2B	.015	6	22 1/2	6.80	2 1/2	1 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
V8	1952-53	8-3 1/2 x 4	.018††	5B	.014C	.018C	Ch-H-10	.031	2B	.015	4	21 1/2	7.20	2 1/2	1 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
V8	1954	8-3 1/2 x 3 1/2	.017††	15B	.019H	.019H	Ch-H-10	.031	3B	.015	5	19	7.50	2 1/2	1 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
Custom, Monterey	1955	8-3 1/2 x 3 1/2	ER	12B	.019H	.019H	Ch-870	.034	3B	.015	5	19	7.60	2 1/2	1 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
Montclair	1955	8-3 1/2 x 3 1/2	ER	12B	.019H	.019H	Ch-870	.034	3B	.015	5	19	8.50	2 1/2	1 1/2	0 to 1 1/2 N	0 to 1 1/2 P			
NASH																				
5040	1950	6-3 1/2 x 4	.019	6B	.015H	.015H	AL-A5	.030	TC	.021	5	15	7.00	2 1/2	1 1/2	0 to 1 1/2 P	1/2 N to 1 1/2 P			
5060	1950	6-3 1/2 x 4 1/2	.023	8 1/2 B	.015H	.018H	(a)	.030	TC	.021	6	18	7.30	2 1/2	1 1/2	0 to 1 1/2 P	1/2 N to 1 1/2 P			
5110	1951	6-3 1/2 x 3 1/2	.019	6B	.015H	.015H	AL-A5	.030	TC	.021	5	11	7.25	2 1/2	1 1/2	1/2 P to 1 1/2 P	1/2 P to 1 1/2 P			
5140	1951	6-3 1/2 x 4	.019	6B	.015H	.015H	AL-A5	.030	TC	.021	5	15	7.00</							

TUNE-UP DATA ON 1950-1955 CARS

MAKE AND MODEL	No. of Cylinders, Bore and Stroke (In.)	VALVES				IGNITION				Crankcase Capacity (Qts.)	Cooling System Capacity (Qts.)	Compression Ratio (Standard Head)	CRANK- PIN		FRONT AXLE						
		Inlet Tappet Clearance (In.)	Intake Valve Opens Deg. Before or After T.C.	Operating Tappet Clearance (In.)		Spark Plug		Timing	Breaker Gap (In.)				Diameter (In.)	Length (In.)	Caster (Deg.)	Camber (Deg.)	Toe-In (In.)	Kingpin Inclination (Deg.)			
				Intake	Exhaust	Make and Model	Gap (In.)														
OLDSMOBILE																					
76	1950	6-3 1/4 x 4 3/8	.013	4B	.008H	.011H	AC-45	.040	TC	.021	5	18 1/2	6.50	2 1/4	1 1/8	0 to 3/4 N	1/4 N to 1/4 P	1/4 to 1/4	4 1/2		
88, 98	1950	8-3 1/4 x 3 1/2	.013	13 1/2 B	.008H	.011H	AC-45	.030	2 1/2 B	.015	5	21 1/2	7.25	2 1/4	2	0 to 3/4 N	1/4 N to 1/4 P	1/4 to 1/4	4 1/2		
88, 98	1951	8-3 1/4 x 3 1/2	AA	13 1/2 B	AA	AA	AC-46-5	.030	2 1/2 B	.016	5	21 1/2	7.50	2 1/4	2	0 to 3/4 N	1/4 N to 1/4 P	1/4 to 1/4	4 1/2		
88, 98	1952	8-3 1/4 x 3 1/2	.003	13 1/2 B	AA	AA	AC-46-5	.030	2 1/2 B	.016	5	21 1/2	7.50	2 1/4	2	0 to 3/4 N	1/4 N to 1/4 P	1/4 to 1/4	4 1/2		
88, 98	1953	8-3 1/4 x 3 1/2	.003	13 1/2 B	AA	AA	AC-46-5	.030	2 1/2 B	.016	5	21 1/2	8.00	2 1/4	2	0 to 3/4 N	1/4 N to 1/4 P	1/4 to 1/4	4 1/2		
88, 98	1954	8-3 1/4 x 3 1/2	ER	13 1/2 B	AA	AA	AC-46-5	.030	5B	.016	5	20 1/2	8.25	2 1/4	2	0 to 3/4 N	1/4 N to 1/4 P	1/4 to 1/4	5 5/8		
88, 98	1955	8-3 1/4 x 3 1/2	ER	13 1/2 B	AA	AA	AC-44-5	.030	5B	.016	5	20 1/2	8.50	2 1/4	2	0 to 3/4 N	1/4 N to 1/4 P	1/4 to 1/4	5 5/8		
PACKARD																					
2301	1950	8-3 1/4 x 3 3/8	.013	15B	.007H	.010H	(c)	.028	6B	.015	7	18	7.00	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
2302, 2332	1950	8-3 1/4 x 4 1/4	.013	15B	.007H	.010H	(c)	.028	6B	.015	7	19	7.00	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
2306, 2333	1950	8-3 1/4 x 4 1/4		4B			(c)	.028	6B	.015	7	19	7.00	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
200	1951	8-3 1/4 x 4 1/4	.012	15B	.007H	.010H	(d)	.028	6B	.015	7	20	7.00	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
300	1951	8-3 1/4 x 4 1/4	AA	15B	AA	AA	(d)	.028	6B	.015	7	20	7.00	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
400	1951	8-3 1/4 x 4 1/4	AA	15B	AA	AA	(d)	.028	6B	.015	7	20	7.80	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
200	1952	8-3 1/4 x 4 1/4	.012	15B	.007H	.010H	(e)	.026	6B	.017	7	20	7.00	2 1/4	1 1/8	1/4 N to 1/4 N	0 to 3/4 P	0 to 1/4	5 5/8		
250, 300	1952	8-3 1/4 x 4 1/4	NU	15B	AA	AA	(e)	.026	6B	.017	7	20	7.00	2 1/4	1 1/8	1/4 N to 1/4 N	0 to 3/4 P	0 to 1/4	5 5/8		
400	1952	8-3 1/4 x 4 1/4	NU	15B	AA	AA	(e)	.026	6B	.017	7	20	7.80	2 1/4	1 1/8	1/4 N to 1/4 N	0 to 3/4 P	0 to 1/4	5 5/8		
2601	1953	8-3 1/4 x 3 3/8	.013	15B	.007H	.010H	(d)	.026	6B	.015	7	20	7.70	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 1/2		
2611	1953	8-3 1/4 x 4 1/4	.013	15B	.007H	.010H	(d)	.026	6B	.015	7	20	8.00	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 1/2		
2602, 2606, 2626, 2631	1953	8-3 1/4 x 4 1/4	AA	15B	AA	AA	(d)	.026	6B	.015	7	20	8.00	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 1/2		
5400	1954	8-3 1/4 x 3 3/8	.012	15B	.007H	.010H	Ch-J-8	.028	6B	.015	7	20	7.70	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
5401, 5411	1954	8-3 1/4 x 4 1/4	.012	10B	.007H	.010H	Ch-J-8	.028	6B	.015	7	20	8.00	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
5402	1954	8-3 1/4 x 4 1/4	NU	10B	AA	AA	Ch-J-8	.028	6B	.015	7	20	8.00	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
5406, 5426, 5431	1954	8-3 1/4 x 4 1/4	NU	22B	AA	AA	Ch-J-8	.028	TC	.015	7	20	8.70	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
5540	1955	8-3 1/4 x 3 1/2	NU	14B	AA	AA	(g)	.035	6B	.016	5	26	8.50	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
5560, 5580	1955	8-4 x 3 1/2	NU	14B	AA	AA	Ch-H-10	.035	6B	.016	5	26	8.50	2 1/4	1 1/8	1/4 N to 1/4 N	1/4 N to 1/4 P	0 to 1/4	5 5/8		
PLYMOUTH																					
P-19, P-20	1950	6-3 1/4 x 4 3/8	.014	12B	.008H	.010H	AL-AR5	.035	TC	.020	5	15	7.00	2 1/4	1 1/4	1N to 1P	0 to 3/4 P	0 to 1/4	5 1/4		
P-22, P-23	1951	6-3 1/4 x 4 3/8	.014	12B	.008H	.010H	AL-AR8	.035	2B	.019	5	13	7.00	2 1/4	1 1/4	1N to 1P	3/8 N to 3/8 P	0 to 1/4	5 1/4		
P-22, P-23	1952	6-3 1/4 x 4 3/8	.014	12B	.010H	.010H	AL-AR8	.035	2B	.020	5	13	7.00	2 1/4	1 1/4	1N to 1P	3/8 N to 3/8 P	0 to 1/4	5 1/4		
P-24	1953	6-3 1/4 x 4 3/8	.014	12B	.010H	.010H	AL-AR8	.035	2B	.020	5	13	7.10	2 1/4	1 1/4	1N to 1P	3/8 N to 3/8 P	0 to 1/4	5 1/4		
P-25 (Early)	1954	6-3 1/4 x 4 3/8	.014	12B	.010H	.010H	AL-4S-140	.035	2B	.020	5	13	7.10	2 1/4	1 1/4	1N to 1P	3/8 N to 3/8 P	0 to 1/4	5 1/4		
P-25 (Late)	1954	6-3 1/4 x 4 3/8	.014	12B	.010H	.010H	AL-4S-140	.035	2B	.020	5	14	7.25	2 1/4	1 1/4	1N to 1P	3/8 N to 3/8 P	0 to 1/4	5 1/4		
P-26	1955	6-3 1/4 x 4 3/8	.014	12B	.010H	.010H	AL-4S-140	.035	2B	.020	5	13	7.40	2 1/4	1 1/4	0 to 2N	3/8 N to 3/8 P	0 to 1/4	5 1/4		
P-27	1955	8-3 1/4 x 3 1/2	VTS	14B	AA	AA	AL-4S-165	.035	4B	.018	5	19	7.60	1 1/4	1 1/4	0 to 2N	3/8 N to 3/8 P	0 to 1/4	5 1/4		
P-27	1955	8-3 1/4 x 3 1/2	VTS	14B	AA	AA	AL-4S-165	.035	4B	.018	5	19	7.60	1 1/4	1 1/4	0 to 2N	3/8 N to 3/8 P	0 to 1/4	5 1/4		
PONTIAC																					
25	1950	6-3 1/4 x 4	.013H	5B	.013H	.013H	AC-45	.025	6B	.022	5	18 1/2	6.50	2 1/4	1 3/8	3/4 N	0	0 to 1/4	5 1/4		
27	1950	8-3 3/4 x 3 3/8	.013H	5B	.013H	.013H	AC-45	.025	6B	.016	5	20	6.50	2 1/4	1 1/8	3/4 N	0	0 to 1/4	5 1/4		
25	1951	6-3 1/4 x 4	.015	5B	.012H	.012H	AC-45	.026	6B	.022	6	18 1/2	6.50	2 1/4	1 1/8	1/4 N to 1N	1/4 N to 1/4 P	0 to 1/4	5 1/4		
27	1951	8-3 3/4 x 3 3/8	.015	5B	.012H	.012H	AC-45	.026	6B	.016	6	19 1/2	6.50	2 1/4	1 1/8	1/4 N to 1N	1/4 N to 1/4 P	0 to 1/4	5 1/4		
25	1952	6-3 1/4 x 4	.015C	5B	.011H	.013H	AC-44-5	.026	6B	.022	5	18	6.80	2 1/4	1 3/8	3/4 N	0	0 to 1/4	5 1/4		
27	1952	8-3 3/4 x 3 3/8	.015C	5B	.011H	.013H	AC-44-5	.026	6B	.016	5	19	6.80	2 1/4	1 3/8	3/4 N	0	0 to 1/4	5 1/4		
25	1953	8-3 3/4 x 3 3/8	.015C	12 1/2 B	.012H	.012H	AC-44-5	.026	TC	.022	5	18 1/2	7.00	2 1/4	1 3/8	1/4 N to 1/4 P	0 to 3/4 P	0 to 1/4	5 1/4		
27	1953	8-3 3/4 x 3 3/8	.015C	5B	.012H	.012H	AC-44-5	.026	6B	.016	5	19 1/2	6.80	2 1/4	1 3/8	1/4 N to 1/4 P	1/4 P to 3/4 P	0 to 1/4	5 1/4		
25	1954	6-3 1/4 x 4	.015C	12 1/2 B	.012H	.012H	AC-44-5	.026	3B	.016	5	18 1/2	7.00	2 1/4	1 3/8	1/4 N to 1/4 P	0 to 1P	0 to 1/4	5 1/4		
27, 28	1954	8-3 3/4 x 3 3/8	.015C	5B	.012H	.012H	AC-44-5	.026	6B	.016	5	18 1/2	6.80	2 1/4	1 3/8	1/4 N to 1/4 P	0 to 1P	0 to 1/4	5 1/4		
27, 28	1955	8-3 3/4 x 3 3/8	ER	22B	AA	AA	AC-44-5	.036	5B	.016	5	24	8.00	2 1/4	1 3/8	1/4 N to 1/4 N	0 to 1P	0 to 1/4	5 1/4		
STUDEBAKER																					
9G	1950	6-3 x 4	.020	15B	.016C	.016C	Ch-J-7	.025	2B	.020	5	10	7.00	1 1/4	1 1/4	0 to 1N	0 to 1P	1/4 to 1/4	5 1/4		
17A	1950	6-3 1/4 x 4 1/4	.020	15B	.016C	.016C	Ch-J-7	.025	2B	.022	6	13 1/2	7.00	2 1/4	1 1/4	1 1/4 N to 2 1/4 N	0 to 1P	1/4 to 1/4	5 1/4		
10G	1951	6-3 x 4	.020	15B	.016C	.016C	Ch-J-7	.025	2B	.020	5	10	7.00	1 1/4	1 1/4	1N to 2 1/4 N	0 to 1P	1/4 to 1/4	5 1/4		
H	1951	8-3 3/4 x 3 3/8	.020	11B	.015	.015	Ch-H-8	.035	8B	.016	6	17 1/4	7.00	2 1/4	1 1/4	1N to 2 1/4 N	0 to 1P	1/4 to 1/4	5 1/4		
12G	1952	6-3 x 4	.020	15B	.016C	.016C	Ch-J-7	.025	2B	.020	5	10	7.00	1 1/4	1 1/4	1 1/4 N	0 to 1P	1/4 to 1/4	6		
13H	1952	8-3 3/4 x 3 3/8	.020	11B	.015C	.015C	Ch-H-8	.035	8B	.016	6	17 1/4	7.00	2 1/4	1 1/4	1 1/4 N	0 to 1P	1/4 to 1/4	6		
14G	1953	6-3 x 4	.020	15B	.016C	.016C	Ch-J-7	.025	2B	.020	5	10	7.00	1 1/4	1 1/4	1 1/4 N to 3/4 P	0 to 1P	1/4 to 1/4	6		
4H	1953	8-3 3/4 x 3 3/8	.030	11B	.022H	.022H	Ch-H-10	.035	4B	.016	6	17 1/4	7.00	2 1/4	1 1/4	1 1/4 N to 3/4 P	0 to 1P	1/4 to 1/4	6		
15G	1954	6-3 x 4	.020	15B	.016C	.016C	Ch-J-7	.031	2B	.020	5	10	7.50	1 1/4	1 1/4	1N to 2 1/4 N	0 to 1P	1/4 to 1/4	6		
5																					

SMALL ENGINES

MAKE AND MODEL	Designed for Use	Number of Cycles	ENGINE										GOV-ERNOR		Ignition System Type	FUEL SYSTEM		Fuel Used	Starting Method			
			Type	No. of Cylinders	Bore and Stroke (In.)	Total Displacement (Cu. In.)	Compression Ratio (to -1)	Valve Location	Horsepower		Torque—Lb. Ft. at RPM	Weight (Lb.)	Used	Type		Type	Make					
									Rated at RPM	Continuous at RPM												
AIR COOLED																						
Briggs & Stratton	5S	General Purpose	4	Ver	1	2x1½	4.71	5.29	L	1.00-3200	.85-3200	1.60-3200	30	Y	Av	Mag	MV	Own	G	Rr		
6S	General Purpose	4	Ver	1	2x2	6.28	5.66	L	1.60-3200	1.36-3200	2.60-3200	33	Y	Av	Mag	MV	Own	G	Rr			
6B-H	General Purpose	4	Ver	1	2x2	6.28	5.66	L	2.00-3600	1.70-3600	2.90-3600	34	Y	MA	Mag	Car	Own	G	Rr			
6B-HS	Lawn Mowers	4	Hor	1	2½x1½	6.30	5.90	L	1.00-3200	1.36-3200	2.62-3200	18½	Y	Av	Mag	MV	Own	G	Rr			
6B-H	Lawn Mowers	4	Hor	1	2½x1½	6.30	5.90	L	2.00-3600	1.70-3600	2.92-3600	19½	Y	Av	MA	Mag	Car	Own	G	Rr		
8	General Purpose	4	Ver	1	2½x2	7.95	5.40	L	2.50-3600	2.10-3600	3.70-3600	36	Y	MA	Mag	Car	Own	G	Rr			
9	General Purpose	4	Ver	1	2½x2½	8.95	5.40	L	3.35-3600	2.80-3600	4.90-3600	61	Y	Me	Mag	Car	Own	G	HR			
14	General Purpose	4	Ver	1	2½x2½	14.21	5.40	L	5.25-3600	4.40-3600	7.70-3600	76	Y	Me	Mag	Car	Own	G	HR			
23	General Purpose	4	Ver	1	3x3½	22.97	5.40	L	8.40-3600	7.10-3600	12.30-3600	98	Y	Me	Mag	Car	Own	G	HR			
Clinton	VS-200	General Purpose	2	Ver	1	1½x1½	4.50	6.20	L	1.60-3600	2.90-3200	4.40-3600	15½	Y	Av	Mag	Car	O-C	G	Rr		
2100	General Purpose	4	Hor	1	2x1½	4.71	5.20	L	1.30-3600	1.20-3200	1.90-3600	35	Y	Av	Mag	Car	O-C	G	Rr			
VS-2100	General Purpose	4	Ver	1	2x1½	4.71	5.20	L	1.30-3600	1.20-3200	1.90-3600	35	Y	Av	Mag	Car	O-C	G	Rr			
VS-400	General Purpose	2	Ver	1	2½x1½	5.76	6.20	L	2.50-3600	2.90-3200	4.40-3600	15½	Y	Av	Mag	Car	O-C	G	Rr			
VS-100, VS-700	General Purpose	4	Ver	1	2x1½	5.69	5.60	L	2.00-3600	1.80-3200	2.90-3600	36	Y	Av	Mag	Car	O-C	G	Rr			
C-700	General Purpose	4	Hor	1	2x1½	5.69	5.60	L	2.00-3600	1.80-3200	2.90-3600	36	Y	Av	Mag	Car	O-C	G	Rr			
VS-800	General Purpose	4	Ver	1	2½x1½	8.30	6.20	L	2.50-3600	1.80-3200	3.60-3600	46	Y	Av	Mag	Car	O-C	G	Rr			
900	General Purpose	4	Hor	1	2½x1½	8.30	6.20	L	2.50-3600	1.80-3200	3.60-3600	42	Y	Av	Mag	Car	O-C	G	Rr			
1200	General Purpose	4	Hor	1	2½x1½	8.30	6.20	L	3.60-3600	3.00-3200	4.40-3600	45	Y	Av	Mag	Car	O-C	G	Rr			
1600	General Purpose	4	Hor	1	2½x2½	16.30	6.50	L	6.00-3200	6.00-3200	4.40-3600	76	Y	Fb	Mag	Car	Cart	G	Rr			
2500	General Purpose	4	Hor	1	3½x3½	25.00	6.50	L	9.00-3200	9.00-3200	4.40-3600	104	Y	Fb	Mag	Car	Cart	G	Rr			
Continental	AU7, AU7B	General Purpose	4	(c)	1	2½x2	7.10	5.70	L	2.00-3600	1.70-3600	3.02-3000	36	Y	MA	Mag	Car	CTZ	G	BR		
AU7R	General Purpose	4	(c)	1	2½x2	7.10	5.70	L	2.00-3600	1.70-3600	3.02-3000	41	Y	MA	Mag	Car	CTZ	G	BR			
AD7, AW7	Lawn Mowers	4	Ver	1	2½x2	7.10	5.70	L	2.00-3600	1.70-3600	3.02-3000	41	Y	Av	Mag	Car	CTZ	G	BR			
AU7B	General Purpose	4	(c)	1	2½x2	7.10	5.70	L	2.00-3600	1.70-3600	3.02-3000	36	Y	MA	Mag	Car	CTZ	G	BR			
AU8, AU8B	General Purpose	4	(c)	1	2½x2	7.95	5.80	L	2.50-3600	2.12-3600	4.10-2600	36	Y	MA	Mag	Car	CTZ	G	BR			
AU8R	General Purpose	4	(c)	1	2½x2	7.95	5.80	L	2.50-3600	2.12-3600	4.10-2600	36	Y	MA	Mag	Car	CTZ	G	BR			
AD8, AW8	Lawn Mowers	4	Ver	1	2½x2	7.95	5.80	L	2.50-3600	2.12-3600	4.10-2600	41	Y	Av	Mag	Car	CTZ	G	BR			
AU85	General Purpose	4	(c)	1	2½x2	8.40	6.00	L	3.00-3600	2.75-3600	4.50-2600	36	Y	MA	Mag	Car	CTZ	G	BR			
AU85R	General Purpose	4	(c)	1	2½x2	8.40	6.00	L	3.00-3600	2.75-3600	4.50-2600	41	Y	MA	Mag	Car	CTZ	G	BR			
AD85, AW85	Lawn Mowers	4	Ver	1	2½x2	8.40	6.00	L	3.00-3600	2.75-3600	4.50-2600	41	Y	Av	Mag	Car	CTZ	G	BR			
Cushman	Husky-M6	General Purpose	4	Ver	1	2½x2½	12.30	4.70	L	3.00-3000	2.60-3000	5.20-2000	65	Y	Fb	Mag	Car	Til	G	R		
Husky-M7	General Purpose	4	Ver	1	2½x2½	14.90	5.40	L	4.50-3000	3.80-3000	7.90-2000	65	Y	Fb	Mag	Car	Til	G	R			
Husky-M8	General Purpose	4	Ver	1	2½x2½	17.80	5.90	L	5.00-3000	4.30-3000	9.50-2000	65	Y	Fb	Mag	Car	Til	G	R			
Gladden	40	General Purpose	4	Ver	1	2½x3	14.70	4.50	L	4.30-3200	4.30-3200	8.40-2200	79	Y	Fb	Mag	Car	MS	G,K	Rr		
40M	General Purpose	4	Ver	1	2½x3	14.70	4.50	L	4.30-3200	4.30-3200	8.40-2200	80	Y	Fb	Mag	Car	MS	G	Rr			
50	General Purpose	4	Ver	1	2½x3	14.70	5.70	L	5.25-3200	5.25-3200	9.20-2500	81	Y	Fb	Mag	Car	MS	G	Rr			
75MES	General Purpose	4	Ver	1	2½x3	19.40	5.70	L	6.50-3200	6.50-3200	11.00-3200	138	N	MA	Mag	Car	MS	G	Ele.			
75ES	General Purpose	4	Ver	1	2½x3	19.40	5.70	L	6.50-3200	6.50-3200	11.80-3200	136	N	MA	Mag	Car	MS	G	Ele.			
75M	General Purpose	4	Ver	1	2½x3	19.40	5.70	L	7.00-3200	7.00-3200	11.80-3200	86	N	MA	Mag	Car	MS	G	Rr			
75	General Purpose	4	Ver	1	2½x3	19.40	5.70	L	7.00-3200	7.00-3200	13.50-2200	83	Y	Fb	Mag	Car	MS	G,K	Rr			
MC	Motorcycle	4	Ver	1	2½x3	19.40	6.00	L	9.50-5000	9.00-4800	12.30-3000	65	N	MA	Mag	Car	Am	G	Pe			
Hemelite	17	Chain Saws	2	Ver	1	2x1½	4.33			3.50-5800	3.50-5800		22	Y	Av	Mag	Car	O-T	G	Hc		
20	Chain Saws	2	Ver	1	2½x1½	6.70	5.50	(a)	3.50-3600	3.50-3600		20	Y	Av	MA	Mag	Car	Til	G,K	Hc		
5-30N	Chain Saws	2	Ver	1	2½x1½	6.97	6.00	(a)	5.50-5200	5.50-5200		29	Y	Ce	Mag	Car	Til	G	Hc			
23	Chain Saws	2	Ver	1	2½x2	8.40	5.50	(a)	4.00-3600	4.00-3600		30	Y	Av	MA	Mag	Car	Own	G,K	Hc		
24	General Purpose	2	Ver	1	2½x2½	11.40	5.50	(a)	6.00-3600	6.00-3600		40	Y	Av	MA	Mag	Car	O-Z	G,K	Hc		
32	Generator Sets	2	Ver	1	3x3	21.21	5.50	(a)	10.00-3600			125	Y	Va	MA	Mag	Car	Own	G,K	Hc		
Jacobsen	J100	Lawn Mowers	2	Hor	1	2x1½	4.70	5.50		1.63-3600	1.50-3600	1.40-3600	19½	Y	Av	Mag	Car	Til	G	Rc		
J100V	Lawn Mowers	2	Ver	1	2x1½	4.70	5.50		1.63-3600	1.50-3600	1.40-3600	19½	Y	Av	Mag	Car	Til	G	Rc			
J200	Lawn Mowers	2	Hor	1	2x2	6.28	5.66		2.43-3600	2.20-3600	3.55-3600	46	Y	Av	Mag	Car	Til	G	Rc			
J200V	Lawn Mowers	2	Ver	1	2x2	6.28	5.66		2.43-3600	2.20-3600	3.55-3600	46	Y	Av	Mag	Car	Til	G	Rc			
Kohler	K90	General Purpose	4	Ver	1	2½x2	8.86	6.00	L	3.60-3600	3.10-3600	5.60-3000	41	Y	Fb	Mag	Car	Cart	G	Rr		
K160	General Purpose	4	Ver	1	2½x2½	16.22	6.00	L	6.60-3600	5.40-3600	11.20-2400	67	Y	Fw	Mag	Car	Cart	G	Err-ER			
K330	General Purpose	4	Ver	1	3½x3½	33.60	6.00	L	11.80-3200		21.40-2200	165	Y	Fw	Mag	Car	Cart	G	HE			
K660	General Purpose	4	Op	2	3½x3½	67.20	6.00	L	26.80-3600	22.70-3600	43.80-1800	225	Y	Fw	Mag	Car	Cart	G	HE			
Lauson	R	Lm,Pu	4	Hor	1	2x1½	5.90	5.80	L	2.00-3600	1.50-3600	2.90-3600	37	Y	Fb	Mag	Car	Til	G	BP		
55A-400, 55A-420	General Purpose	4	Ver	1	2x1½	5.90	5.80	L	2.00-3600	1.50-3600	2.90-3600	33	Y	Fb	Mag	Car	Til	G	R			
RSH-737, 55AB-600	General Purpose	4	Ver	1	2x1½	5.90	5.80	L	2.00-3600	1.50-3600	2.90-3600	28	Y	Fb	Mag	Car	Til	G	R			
RSH-760	General Purpose	4	Ver	1	2x1½	5.90	5.80	L	2.00-3600	1.50-3600	2.90-3600	43	Y	Fb	Mag	Car	Til	G	R			
V-1	Lawn Mowers	4	Hor	1	2x1½	5.90	5.80	L	2.00-3600	1.50-3600	2.90-3600	31	Y	Fb	Mag	Car	Til	G	R			
RSV-800	Lawn Mowers	4	Hor	1	2x1½	5.90	5.80	L	2.00-3600	1.50-3600	2.90-3600	33	Y	Fb	Mag	Car	Til	G	R			
SLV	Marine	4	Hor	1	2½x1½	6.29			2.00			19½	Y	MA	Mag	Car	Til	G	R			
TLV-900	Lawn Mowers	4	Hor	1	2½x2½	8.95	5.80	L	3.00-3200	2.50-3200	4.70-3200	58	Y	Fb	Mag	Car	Til	G	R			
TLH-725	General Purpose	4	Ver	1	2½x2½	8.95	5.80	L	3.30			52	Y	Fb	Mag	Car	Til	G	R			
TLH-661	General Purpose	4	Ver	1	2½x2½	8.95	5.80	L	3.30			52	Y	Fb	Mag	Car	Til	G	R			
P-25	General Purpose	4	Ver	1	2½x2½	17.85	6.30	L	6.30-3600	5.50-3600	9.50-3000	85	Y	Fb	Mag	Car	Til	G	BP			
P-27	General Purpose	4	Ver	1	2½x2½	17.85	6.30	L	6.30-3600	5.50-3600	9.50-3000	103	Y	Fb	Mag	Car	Til	G	BP			
McCulloch	33-B	Chain Saws	2	Ver	1	1½x1½	3.30	7.20	Re	2.20-5600		2.60-4800	20	N		Mag	Car	Own	G	AR		
47	Chain Saws	2	Ver	1	2x1½	4.71	7.00	(a)	3.30-5000		4.60-4000	30	Y	Os	Mag	Car	Own	G	AR			
4-30A	Chain Saws	2	Ver	1	2½x1½	5.30	6.75	(a)	4.80-6000		5.80-4800	31	Y	Os	Mag	Car	Own	G	AR			
99	Pu,Cs,ED</																					

SMALL ENGINES

MAKE AND MODEL	Designed for Use	ENGINE										GOV-ERNOR		FUEL SYSTEM		Fuel Used	Starting Method	
		Number of Cycles	Type	No. of Cylinders	Bore and Stroke (In.)	Total Displacement (Cu. In.)	Compression Ratio (to 1)	Valve Location	Horsepower		Torque—Lb. Ft. at RPM	Weight (Lb.)	Used	Type	Ignition System Type	Type	Make	
									Rated at RPM	Continuous at RPM								
AIR COOLED—Continued																		
Onan—Cont'd. CCK	General Purpose	4	Op	2	3 1/4 x 3	49.80	5.58	L	13.60-3000	11.50-3000	27.80-1800	129	Y	(b)	Mag	Car	MS	G
CW	Generator Sets	4	Op	2	4 x 3 1/2	88.00	5.50	L	20.00-1800	16.50-1800	58.30-1800	420	Y	Fb	Mag	Car	Zen	HE
Power Products AV36-2032	General Purpose	2	Ver	1	1 3/4 x 1 1/2	3.60	.....	Re	1.30-3400	1.30-3400	1.92-3100	12 3/4	Y	Fb	Mag	Car	Til	G
AH36-1007	General Purpose	2	Hor	1	1 3/4 x 1 1/2	3.60	.....	Re	1.30-3400	1.30-3400	1.92-3100	14 3/4	Y	Fb	Mag	Car	Til	G
AV36-2033	General Purpose	2	Ver	1	1 3/4 x 1 1/2	3.60	.....	Re	1.40-3200	1.40-3200	2.00-3200	15	Y	Fb	Mag	Car	Til	G
AH36-1008	General Purpose	2	Hor	1	1 3/4 x 1 1/2	3.60	.....	Re	1.40-3200	1.40-3200	2.00-3200	17	Y	Fb	Mag	Car	Til	G
AV47-2034	General Purpose	2	Ver	1	2 x 1 1/2	4.70	.....	Re	1.90-3800	1.90-3800	2.67-3400	13	Y	Fb	Mag	Car	Til	G
AH47-1009	General Purpose	2	Hor	1	2 x 1 1/2	4.70	.....	Re	1.90-3800	1.90-3800	2.67-3400	15	Y	Fb	Mag	Car	Til	G
AV47-2035	General Purpose	2	Ver	1	2 x 1 1/2	4.70	.....	Re	1.80-3200	1.80-3200	2.92-3400	15 1/4	Y	Fb	Mag	Car	Til	G
AH47-701	General Purpose	2	Hor	1	2 x 1 1/2	4.70	.....	Re	1.80-3200	1.80-3200	2.92-3400	17	Y	Fb	Mag	Car	Til	G
AV47-1010	General Purpose	2	Ver	1	2 x 1 1/2	4.70	.....	Re	1.80-3200	1.80-3200	2.92-3400	17 1/4	Y	Fb	Mag	Car	Til	G
BV60-319A	General Purpose	2	Op	2	1 3/4 x 1 1/8	6.00	.....	Re	2.00-3400	2.00-3400	2.83-3000	25 1/2	Y	Fb	Mag	Car	Til	G
BH60-325A	General Purpose	2	Op	2	1 3/4 x 1 1/8	6.00	.....	Re	2.30-3600	2.30-3600	2.50-2900	25 1/2	Y	Fb	Mag	Car	Til	G
BV69-361	General Purpose	2	Op	2	1 3/4 x 1 1/8	6.90	.....	Re	2.30-3300	2.30-3300	2.50-3400	27 1/2	Y	Fb	Mag	Car	Til	G
BH69-364	General Purpose	2	Op	2	1 3/4 x 1 1/8	6.90	.....	Re	2.30-3300	2.30-3300	2.50-3400	27 1/2	Y	Fb	Mag	Car	Til	G
AV80-407	General Purpose	2	Ver	1	2 1/4 x 2	8.00	.....	Re	3.40-3400	3.40-3400	5.50-3000	23 1/2	Y	Fb	Mag	Car	Til	G
AH80-410	General Purpose	2	Hor	1	2 1/4 x 2	8.00	.....	Re	3.40-3400	3.40-3400	5.50-3000	26	Y	Fb	Mag	Car	Til	G
Reo 4000J	Lawn Mower	4	Hor	1	2 x 1 1/4	5.50	5.22	L	1.75-4000	1.40-3400	2.32-2400	28	Y	Av	Mag	Car	Cart	G
3340J	Lawn Mower	4	Hor	1	2 1/4 x 1 1/2	6.65	5.70	L	2.25-4000	1.95-3600	3.21-3400	28	Y	Av	Mag	Car	Cart	G
3300J	Lawn Mower	4	Hor	1	2 1/4 x 1 1/2	6.65	5.70	L	2.25-4000	1.95-3600	3.21-3400	29	Y	Av	Mag	Car	Cart	G
3800J	Lawn Mower	4	Ver	1	2 1/4 x 1 1/2	6.65	5.70	L	2.25-4000	1.95-3600	3.21-3400	29	Y	Av	Mag	Car	Cart	G
3310J, 3350J	Lawn Mower	4	Hor	1	2 1/4 x 1 1/2	6.65	5.70	L	2.25-4000	1.95-3600	3.21-3400	30	Y	Av	Mag	Car	Cart	G
3320J	Snow Plow	4	Hor	1	2 1/4 x 1 1/2	6.65	5.70	L	2.25-4000	1.95-3600	3.21-3400	30	Y	Av	Mag	Car	Cart	G
3330J	Lawn Mower	4	Ver	1	2 1/4 x 1 1/2	6.65	5.70	L	2.25-4000	1.95-3600	3.21-3400	30	Y	Av	Mag	Car	Cart	G
MW-3810J	Lawn Mower	4	Hor	1	2 1/4 x 1 1/2	6.65	5.70	L	2.25-4000	1.95-3600	3.21-3400	30	Y	Av	Mag	Car	Cart	G
United 1 1/2 HP	General Purpose	4	Ver	1	2 5/8 x 2 1/2	11.08	.....	L	.....	.....	.....	70	Y	.....	Mag	Car	Til	G
2 HP	General Purpose	4	Ver	1	2 5/8 x 2 1/2	13.53	.....	L	.....	.....	.....	75	Y	.....	Mag	Car	Til	G
4 HP	General Purpose	4	Ver	1	2 5/8 x 2 1/2	14.89	.....	L	.....	.....	.....	75	Y	.....	Mag	Car	Til	G
West Bend 2755	GS,Ac,Pu,Af	2	Hor	1	1 3/4 x 1 1/4	3.76	.....	Re	1.50-3600	1.50-3600	2.30-3600	17 1/2	Y	Av	Mag	Car	Til	G
2700	Lawn Mowers	2	Ver	1	1 3/4 x 1 1/4	3.76	.....	Re	1.50-3600	1.50-3600	2.30-3600	18 1/4	Y	Av	Mag	Car	Til	G
2703	Lawn Mowers	2	Ver	1	1 3/4 x 1 1/4	3.90	.....	Re	1.50-3600	1.50-3600	2.30-3600	15	Y	Av	Mag	Car	Til	G
2777	GS,Ac,Pu,Af	2	Hor	1	2 x 1 1/4	4.90	.....	Re	2.30-3600	2.30-3600	3.60-3600	17 1/2	Y	Av	Mag	Car	Til	G
2722	Lawn Mowers	2	Ver	1	2 x 1 1/4	5.10	.....	Re	2.30-3600	2.30-3600	3.60-3600	15	Y	Av	Mag	Car	Til	G
2774	Chain Saws	2	Hor	1	2 x 1 1/4	5.10	.....	Re	2.80-4000	2.80-4000	3.50-4000	15	N	.....	Mag	Car	Til	G
Wisconsin ABN	General Purpose	4	Ver	1	2 1/2 x 2 3/4	13.50	5.65	L	4.60-3600	3.70-3600	7.50-2400	77	Y	Ce	Mag	Car	MS	G
AKN	General Purpose	4	Ver	1	2 1/2 x 2 3/4	17.80	5.58	L	6.20-3600	4.96-3600	10.40-2400	77	Y	Ce	Mag	Car	MS	G
AEH	General Purpose	4	Ver	1	3 x 3 1/4	23.00	5.34	L	6.10-2600	4.90-2600	13.00-2000	130	Y	Ce	Mag	Car	Zen	G
AEN	General Purpose	4	Ver	1	3 x 3 1/4	23.00	5.34	L	8.20-3600	6.56-3600	15.40-2200	110	Y	Ce	Mag	Car	Zen	G
AFH	General Purpose	4	Ver	1	3 1/2 x 4	33.20	4.60	L	7.20-2200	5.75-2200	19.80-1400	180	Y	Ce	Mag	Car	Zen	G
AGH	General Purpose	4	Ver	1	3 1/2 x 4	38.50	4.60	L	8.40-2200	6.70-2200	24.20-1400	180	Y	Ce	Mag	Car	Zen	G
AHH	General Purpose	4	Ver	1	3 1/2 x 4	41.30	4.60	L	9.20-2200	7.40-2200	25.80-1300	180	Y	Ce	Mag	Car	Zen	G
TE	General Purpose	4	Ver	2	3 x 3 1/4	45.90	5.44	L	11.20-2600	9.00-2600	27.10-1600	220	Y	Ce	Mag	Car	Zen	G
TF	General Purpose	4	Ver	2	3 1/4 x 3 1/4	53.90	5.50	L	14.60-2600	11.68-2600	32.50-1700	220	Y	Ce	Mag	Car	Zen	G
TFD	General Purpose	4	Ver	2	3 1/4 x 3 1/4	53.90	5.50	L	15.00-3000	12.00-2600	32.50-1700	220	Y	Ce	Mag	Car	Zen	G
WATER COOLED																		
Cushman Cub R-14	General Purpose	4	Hor	1	3 1/4 x 4 1/2	37.33	4.50	L	3.00-850	3.00-850	18.40-600	195	Y	Fb	Mag	MV	Own	G,K,Ng
Cub R-20	General Purpose	4	Hor	1	3 1/2 x 4 1/2	43.29	4.10	L	3.70-850	3.70-850	22.50-700	235	Y	Fb	Mag	MV	Own	G,K,Ng
Cub R-30	General Purpose	4	Hor	1	3 3/4 x 4 1/2	49.70	4.64	L	4.50-850	4.50-850	28.40-800	245	Y	Fb	Mag	MV	Own	G,K,Ng
Cub R-40	General Purpose	4	Hor	1	4 x 4 1/2	56.50	5.10	L	5.40-850	5.40-850	35.00-800	255	Y	Fb	Mag	MV	Own	G,K,Ng
Kermath Sea Pup	Marine	4	Ver	1	2 5/8 x 2 3/4	18.00	6.00	L	5.00-3200	.....	10.00-2700	63	Y	Ce	Mag	Car	Til	G
Sea Twin	Marine	4	Ver	2	2 5/8 x 2 3/4	30.00	6.20	L	10.00-3000	.....	19.00-2700	109	Y	Ce	Mag	Car	Til	G
United 2R14	Af	4	Hor	1	3 1/4 x 4 1/2	37.30	.....	L	.....	.....	.....	195	Y	(d)	Mag	Car	Til	G,K,D
3R20	Af	4	Hor	1	3 1/2 x 4 1/2	43.25	.....	L	.....	.....	.....	235	Y	(d)	Mag	Car	Til	G,K,D
4R30	Af	4	Hor	1	3 3/4 x 4 1/2	49.75	.....	L	.....	.....	.....	245	Y	(d)	Mag	Car	Til	G,K,D
Universal AFTC	Generator Sets	4	Ver	2	3 x 3 1/2	49.50	5.79	L	5.00-1200	6.00-1350	25.00-1200	385	Y	Me	Me	BM	Car	Str
AFC	GS,In	4	Ver	4	3 x 3 1/2	99.00	5.79	L	19.00-1800	18.00-1800	53.00-1800	.....	Y	Me	Me	BM	Car	Str

ABBREVIATIONS

†—Reduction gear model.
 (a)—Rotary intake valve in crankcase.
 (b)—Flyweights on camshaft.
 (c)—Inclined 20° up from horizontal.
 (d)—Automatically controlled by fly-wheel.
 Ac—Air compressors.
 Af—Auxiliary farm implement equipment.
 Am—Amal.
 AR—Automatic rewinding rope.
 Av—Air vane.
 Bl—Blowers.
 BM—Battery and magneto.
 BP—Belt or pulley.

BR—Belt, pulley or recoil.
 Car—Carburetor.
 Cart—Carter Carburetor Corp.
 Ce—Centrifugal.
 Cs—Chain saws.
 CTZ—Carter, Tillotson or Zenith.
 D—Distillate.
 ED—Earth drills.
 Ele—Electric.
 ER—Electric or rope.
 Err—Electric, recoil or rope.
 Fb—Flyball.
 Fw—Flyweight.
 G—Gasoline.
 GS—Generator sets.
 Hc—Hand crank.
 HE—Hand crank or electric.

Hor—Horizontal.
 HR—Hand crank or rope.
 I—Valves in head.
 In—Industrial.
 K—Kerosene.
 L—"L" head, valves at side.
 Lm—Lawn mowers.
 MA—Mechanical or air vane.
 Mag—Magneto.
 Me—Mechanical.
 MS—Marvel-Schebler Carburetor Div.
 MV—Mixing valve.
 N—No or none.
 Ng—Natural gas.
 NgG—Combination of natural gas and gasoline.
 O-C—Own or Carter.

Op—Opposed.
 Os—Over speed.
 O-T—Own and Tillotson.
 O-Z—Own and Zenith.
 Pa—Pedal.
 Pu—Pumps.
 R—Rope.
 Rc—Recoil.
 Re—Reed valves.
 Rr—Recoil or rope.
 Str—Stromberg Carburetor Div.
 Til—Tillotson Mfg. Co.
 Va—Valve.
 Vee—"V" type engine.
 Ver—Vertical.
 Y—Yes.
 Zen—Zenith Carburetor Div.

USE THESE

Free & Easy

INQUIRY CARDS

The Inquiry Card—How It Works

EACH month Motor Age's New Products Show Window describes dozens of fast-moving items and money and time saving equipment from the country's leading manufacturers of dependable automotive products.

When you want more free information on any of these products, simply mark a circle around the same number on the postcard as appears under the item described. You may circle as many items as you wish. Use either or both cards. Separate information will be sent to you on each item. Be sure to give your full name and address.

New Literature

299. Fuel Pump Catalog

Wells Manufacturing Corporation: Facts on CaPaC fuel pumps are contained in a 24-page catalog available through this firm. The catalog explains the engineering of this line of fuel pumps. Car, truck, and engine listings are included to determine the proper model fuel pump, repair kit, or diaphragm kit to use for each vehicle. Copies are available free.

300. Tune-Up Manual

Standard Motor Products, Inc.: A 24 page 8½ x 11 booklet published by this company explains the nomenclature of carburetors and tune-up procedures on engines. The "Hygrade Motor Tune-Up and Carburetor Manual" con-

(Continued on next page)

Postcard valid for 90 days only.

Frank P. Tighe, EDITOR MOTOR AGE
P. O. Box 76, Village Station, N. Y. 14, N. Y.

Please send me further information on the New Products, the code numbers of which I have circled below.

7/55

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| 299. Fuel Pump Catalog | 307. Piston Position | 317. Brake Slide Rules |
| 300. Tune-Up Manual | 308. Compressor Clutch | 318. Fire Extinguisher |
| 301. Radio Replacement Guide | 309. Wheel Rim Band | 319. Automatic Tire Truer |
| 302. Shock Absorber Catalog | 310. Windshield Detergent | 320. Electric Polisher |
| 303. Masking Wall Chart | 311. Air Blow Gun | 321. Rear Axle Stabilizer |
| 304. Storage Equipment Catalog | 312. Polishing Process | 322. Wire Controls |
| 305. Ignition Kit | 313. Torque Wrenches | 323. Brake Fluid Gage |
| 306. Magazine File | 314. Tape Applicator | 324. Engine Analyzer |
| | 315. Armature Lathes | 325. Car Squeak Detector |
| | 316. Paint Strainer | 326. Pouring Spout |
| | | 327. Truck Power Brake |
| | | 328. Grease Absorbent |

Your Name..... Your Title.....
Your Company.....
Your Business: Wholesaler..... Repair Shop..... Car Dealer.....
Address (Street & No.) (City) (Zone) (State)

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Your Business: Wholesaler..... Repair Shop..... Car Dealer.....
Address (Street & No.) (City) (Zone) (State)

New Products

Continued from Page 85

tains illustrations and information on the various carburetor circuits. In addition, tips on trouble shooting plus gages and how to use them are illustrated and explained.

301. Radio Replacement Guide

Merit Coil and Transformer Corp.: An automobile radio replacement guide is now available from this company. The catalog lists replacements for all model cars up to and including 1955, and also features Merit's line of vibrator transformers, speaker outputs, and IF and RF transformers.

302. Shock Absorber Catalog

Heckethorn Mfg. & Supply Co.: The catalog published by this company uses a blue and red color scheme to identify the listings of its two lines of Columbus shock absorbers. The shock absorber model number listed opposite the car it fits is printed on a blue background if it is a Luxury-Ride and on red if a Velvet-Ride. Parts listings are handled in the same manner. The 16 page brochure illustrates and describes several popular types of shock absorber mountings. Also given are descriptions covering the features and operation of the two lines.

303. Masking Wall Chart

Minnesota Mining and Mfg. Co.: An illustrated wall chart, which dramatizes cost-saving, bumper-to-bumper masking techniques is available from this company. The 2' x 3' chart pictures the use of pre-taped aprons in economical 3", 6" and 12" widths for a variety of automotive masking jobs. It also makes suggestions for the use of different widths of tape for protecting emblems, door handles, and the like.

304. Storage Equipment Catalog

Frick-Gallagher Mfg. Co.: More than two dozen new ideas in space- and time-saving storage equipment are presented in a 16-page illustrated color catalog released by this firm. Described are racks, bins, shelves, and pallet frames. Both product and in-use photographs, general description and specifications are provided. Altogether more than 120 models are listed. The catalog is available at no cost.

BUSINESS REPLY CARD

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New PRODUCTS SHOW WINDOW

FOR FURTHER INFORMATION USE POSTCARD FACING THIS PAGE

305

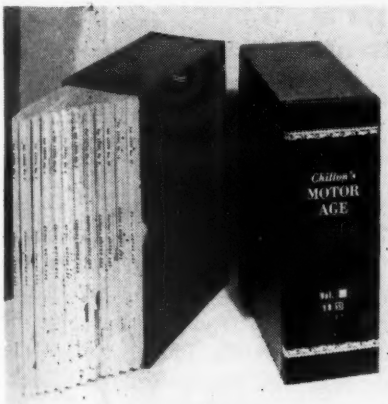
Ignition Kit

Herbrand Tools Div., Bingham-Herbrand Corp.: An ignition kit for servicing all Delco-Remy distributors has been marketed by this firm. The kit consists of three open end wrenches and a special feeler gauge packed in a plastic pouch. The company states that the feeler gauge gives complete coverage for all Delco-Remy contact points.

306

Magazine File

Especially designed to hold 12 full issues of MOTOR AGE, these file boxes will keep them clean but



readily available for immediate use. They are made of heavy binder board especially reinforced and tested up to 150 lb. They are covered in washable red and black "Kivar." Each is stamped on the back in 16 carat gold leaf with the name of the magazine and space to write the year. Cost of each file box is \$2.50.

Chilton's MOTOR AGE, JULY, 1955

307

Piston Position Detector

A.P.P.I. Enterprises: The audible piston position indicator marketed by this firm is said to make timing checks possible without



starting the engine. The brass device, when fitted into a spark plug hole, will make a sound as the engine is turned by hand. The sound stops when the piston reaches top dead center. According to the maker, the indicator can be used to quickly detect faulty timing chains and for adjusting valves, resetting wires and so on.

308

Compressor Clutch

Warner Electric Brake & Clutch Co.: This compressor clutch is said to make it possible to engage and disengage the refrigerating compressor of a car's air conditioning system whenever desired. The unit can be controlled automatically by a thermostat or manually by a toggle switch located on the dashboard. Claimed to ef-

fect gasoline and horsepower savings the clutch is also said to reduce noise in the system.

309

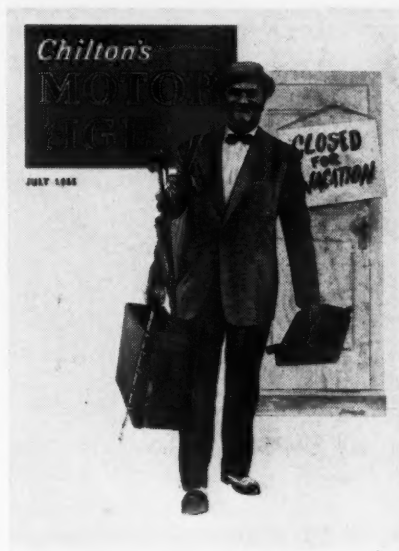
Wheel Rim Band

Lee Tire & Rubber Company: This rim band is said to prevent leaky rim rivets and rim well rust in tubeless tire assemblies. The device is a band of air-sealing rubber which is cemented to the base of the rim well. Designed to fit all types and sizes of rims the band will last the life of the rim, according to the maker.

310

Windshield Detergent

Cristy Chemical Corp.: Tabs, a detergent concentrate for auto-
(Continued on next page)



Win This Original Painting
See page 40

New Products Continued from Page 87

matic windshield washers, has been introduced by the maker. A tablet the size of a quarter, the concentrate dissolves in the washer jar of a car and does not make suds or create streaks, the maker states. One tablet treats a full washer jar, it is said.

311

Air Blow Gun

Gilmour Mfg. Co.: The pistol-grip, positive-control mechanism in the newest Hosemaster air blow gun is said to offer a continuous scale, wide range flexibility of force. A ring lock at the rear of the nozzle permits holding any desired air pressure, the maker states. Light weight and streamlined the tool is made of a metal alloy and has an all brass valve arrangement, according to the maker.

312

Polishing Process

NY-Col Products Div., Chisholm Industries, Inc.: This company has marketed the Hi-Gloss finish process and cleaner-polish. The finish process consists of a large turkish towel that has been impregnated with a chemical which is said to apply a hard, clear finish to paint and chrome. This towel is said to



be effective for up to nine months of service. The chemical, Penatite, is also provided in liquid form as the cleaner-polish.

313

Torque Wrenches

Plomb Tool Co.: Ten Proto torque-limiting wrenches have been added to this firm's line of tools. Equipped with a fixed head bearing pin, side adjusting seal, and handle end seal, the new models, with plain and ratchet heads, have capacities from 5 to 4800 inch-pounds and 100 to 500 foot-pounds.

314

Tape Applicator

GorDag Industries, Inc.: This company has introduced a one-hand dispenser said to be useable with all pressure-sensitive tapes. Tight construction of the Tape Rite keeps tape clean and moist,



the manufacturer states. It is said that the tape cannot be twisted or snarled, and economy is claimed because of waste elimination and speed of application. The unit will accommodate tape $\frac{3}{4}$ inch wide with a standard 3 inch core.

315

Armature Lathes

Parker Machine Tool, Div. Parker-McKnight Co.: The newest precision armature lathes and mica undercutters manufactured by this company are said to handle jobs ranging from small appliance motors to truck and bus armatures. Equipment includes Jacobs chucks, dove-tail ways with adjust-

able gibs, automatic feed, ground spindle with adjustable bearings, semi-steel bed, line-of-sight under-cutter and a swing-in-growler.

316

Paint Strainer

Allen Strainer Co.: This company has marketed a reusable



paint strainer that is said to assure clean paint and help provide speck free spray jobs. The unit comes equipped with replaceable brass straining elements that permit its continued use while dirty screens are being cleaned. In addition to being an adequate tool the strainer is claimed to be a valuable asset to a jobber "give-away" program.

317

Brake Slide Rules

American Brakeblok Div., American Brake Shoe Co.: Called "Servigraph," the slide rules are reproductions of brake systems in the form of revolving 7-inch discs. As the wheel is rotated, cutouts tell how to make all brake adjustments. This includes location of parts, number of turns for backing off nuts and so on. The graphs come in sets of four—Bendix, Huck, Lockheed and Chrysler 2-cylinder.

318

Fire Extinguisher

Kidde & Co., Inc.: A 10-pound pressurized dry chemical fire extinguisher, which carries Underwriters' approval for a pressure

(Continued on page 128)

**OPPORTUNITY
UNLIMITED**
*A Studebaker
case history*



At busy Pleasanton... *deep in the south of Texas...*

former automobile salesman
G. K. KINDRICK
is now operating his own
**Studebaker
Dealership**

SOMETIMES you get where you want to go in this automobile business pretty fast. But mostly you're better off in the long run if you take your time for a while and get a full measure of solid, well-rounded experience. At least, this is the considered opinion of G. K. Kindrick, newly appointed Studebaker Dealer at Pleasanton, Texas.

Few automobile men would rate Mr. Kindrick as more than a young man in years. The fact is, he has just turned 36. But he has really covered the whole automobile front in a very thorough way—in nearby Texas areas—as well as in Pleasanton itself.

Beginning as a salesman for ten years in the employ of dealers marketing a Studebaker competitor, G. K. Kindrick branched out and went into a small used-car business of his own three years ago. More recently he opened up a body and repair shop that nets an excellent annual profit.

But, he had his heart set on a dealership for Studebaker—traditionally

among the most popular cars in Texas.

On January 24 last, this ambition was finally realized. That was the day on which Pleasanton's popular Vice Commander of the American Legion, Assistant Fire Chief and member of City Council, proudly became Studebaker Dealer G. K. Kindrick.



Kindrick Motors, Pleasanton, Texas

Conspicuously located on Highway 281 North, the Kindrick Motors establishment is already a beehive of activity. G. K. Kindrick and Studebaker are really going places together in an important way. And another success-minded automobile salesman has entered the ranks of Studebaker dealers.

STUDEBAKER has a number of good dealership locations awaiting qualified automobile men. This means that your ambition to acquire a fine Studebaker franchise of your own need not be too long delayed.

If you have the right kind of experience and determination, you may not need a large amount of cash capital to win a place for yourself on the expanding Studebaker dealership team. If you are the man we want, we'll see to it that you get the requisite financial backing.

Don't wait too long before inquiring, though. Get in touch with us right away and learn what your chances are. Write in confidence to William A. Keller, General Sales Manager, Studebaker Division, Studebaker-Packard Corporation, South Bend 27, Indiana.

STUDEBAKER

STUDEBAKER DIVISION OF STUDEBAKER-PACKARD CORPORATION... ONE OF THE 4 MAJOR FULL-LINE PRODUCERS OF CARS AND TRUCKS

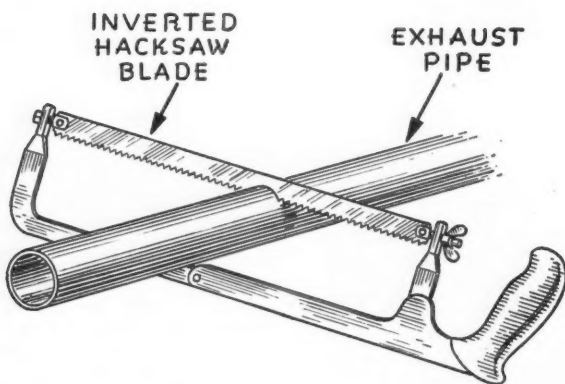
\$25 ShopKinks \$7.50

TIME AND WORK SAVING IDEAS ON CARS AND TRUCKS CAN PAY OFF. SEND YOURS IN NOW!

If you have an original idea for a special tool, a short cut on a job or any trick of value to others, write it down and if necessary make a rough sketch. Just make it clear. Send it to Motor Age. If your Kink is used it may bring you \$7.50 or \$25. All entries become the property of the Chilton Company. Because of the quantity of entries sent in, none can be returned.

\$25

Inverted Saw Works Well For Muffler Removal



We have found an easy way to saw exhaust pipes that must be cut away from the muffler. First, we remove the saw blade from the stock. Then we replace the blade, teeth down, so that the saw is locked around the exhaust pipe. With the saw in place in front of the muffler cut from the top down. The weight of the muffler prevents binding and a better stroke is possible. *Frank H. Duerr, Ace Muffler & Auto Service, 7171 W. Irving Park Rd., Chicago, Ill.*

Finds Short Cut for Removing Transmissions

We have developed a short cut for removing universals or transmissions from any Nash Statesman or Ambassador, 1949 through 1955. First, jack up the rear of the car, place horses under chassis, lower the jack permitting the wheels to hang down. Note: they must clear the floor. Remove 2 large nuts at the back of the trunnion and tap the two studs forward. Pull the rear end back and the drive shaft will fall out of the transmission. Transmission is now ready for normal removal and the universal may be tapped off the end of the drive shaft. *Donald Hart, Ozone Park Nash Co., 103-02 Rockaway Blvd., Ozone Park, N. Y.*

Simple Method to Remove Wheel Bearing and Seal

I've found an easy way to get the bearing and seal out of the hub when a front wheel bearing greasing job must be done. First I remove the cotter key, nut and outer bearing assembly, then I replace the nut only. Pull the wheel till the nut rests against the inside bearing. A solid jerk on the wheel will leave the bearing and retainer undamaged on the spindle. *Leonard Morris, 406 First Ave., N.W., Fari-bault, Minn.*

(Continued on page 92)

No overhaul is complete without

PERFECT CIRCLE

NURLIZING

- * Eliminates piston slap
- * Permits closer piston fit without scuffing or scoring
- * Assures better piston lubrication
- * Is fast...accurate...economical
...permanent

Perfect Circle Nurlizing...the *'original'* knurling method of resizing and resurfacing worn pistons... makes worn pistons like new again *at only a fraction of the cost of replacing them!* Over 10,000,000 installations. Be sure to specify Nurlizing on every engine overhaul! Perfect Circle Corporation, Hagerstown, Indiana; The Perfect Circle Co., Ltd., Toronto, Ontario.

PERFECT CIRCLE NURLIZING



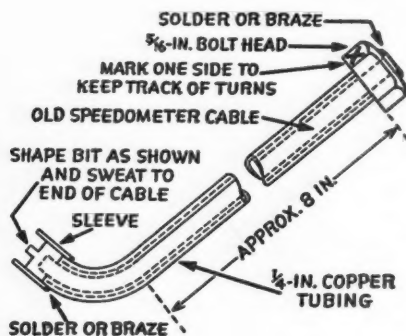
Beware of imitations—See your PC Jobber



Shop Kinks Continued from Page 90

Scrap Metal Used to Make Carburetor Tool

A handy tool for adjusting carburetors on many late model cars in which the idle screws are practically inaccessible can be made al-



most entirely of scrap material. While it is primarily for adjusting carburetors, it can also be used for under the dash work. *Ray G. Voss, 2014 Claussen St., Davenport, Iowa.*

Uses Individual Cans For Parts Cleaning

To help prevent loss or mixing of parts at the cleaning vat or work bench we use parts cans of two sizes. To make them, cut both ends out of round anti-freeze cans and small flat tuna fish cans. Solder a thin mesh copper screen on one end. When disassembling units place parts such as jets and bolts in small cans and put them at the bottom of large can. Place larger parts on top of small can and immerse in cleaning vat for the required time. If necessary, each can may be set aside for later assembly without loss of parts. *J. W. McGill, Wright Truck Line, 210 1st St., Stayton, Oregon.*

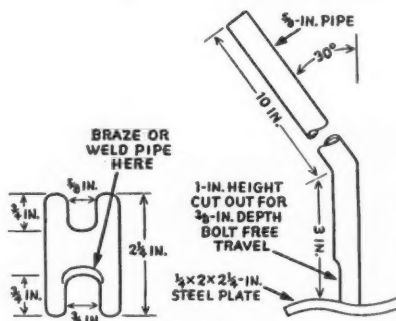
Develops Simple Method To Replace Valve Springs

To replace broken valve springs on overhead engines I first get the new spring and compress it in a vise and tie the two sides with stove pipe wire. Then slide the rocker arm from over the valve spring, remove

the spark plug and get the particular cylinder on compression stroke. Using the air hose and a suitable adapter I apply the pressure as I pull upward on the loose valve, to make it seat properly. The air holds it up while a magnet is used to remove the keepers and install the new spring. Cut the wire and presto, it's done. *Bill Balentine, Searcy County Motors, Inc., Marshall, Ark.*

Makes Chevrolet V-8 Valve Spring Compressor

We've devised a tool for removing 1955 Chevrolet V-8 valve springs without pulling the heads. The notched head of the tool is



slipped under the valve rocker arm stud nut and then pulled forward. This pushes the valve spring down and frees the keeper. A screw driver slipped between the tool handle and the stud will hold it down and let both hands free to work. Easily slipped from valve to valve the tool is made of a length of pipe and a piece of steel plate welded together. *Robert Hoeltge, 3605 Calvet, Overland, Mo.*

Finds Solution to Idle Speed "Knock" in Fords

We have had several 1955 Fords come into our shop with an apparent knock in the engine at idle speed. To stop this noise I remove the oil relief plug from the oil pump (located outside the pan) and stretch the relief spring $\frac{3}{8}$ inch. This stops the pulsating in the oil pump and

suction pipe which causes the knock. *Perc Breakwell, West Chester Ford Co., 500 E. Gay St., West Chester, Pa.*

Air Pressure Removes Wheel Cylinder Pistons

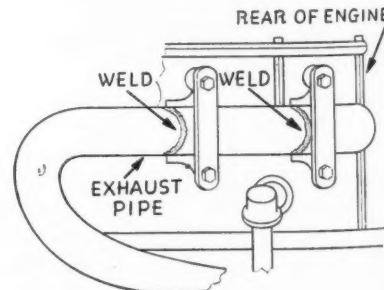
I have developed an easy method for removing split wheel cylinder pistons on late model Chrysler products brakes. Just loosen or remove the bleeder screw on the wheel cylinder and blow air into the hole of the bleeder. The stuck piston will shoot out. *Vincent Dellacio, A. & A. Service Center, Flatlands Ave. & Rockaway Pkwy., Canarsie, Brooklyn, N. Y.*

Horn Relay Used To Replace Starter Switch

I have a handy tip for replacing the starter switch on the shift lever of Nash cars equipped with Hydramatic transmissions. In cases where the switch is not readily available I use a Buick horn relay for the switch and a Ford push button on the dash as replacement equipment. *Al J. Dow, Dow Motor Service, 13214 Maclay Ave., San Fernando, Calif.*

Welds Clamps to Exhaust Pipe to Save Time

To overcome the tough job of removing broken manifold studs, on Nash cars, just weld the clamps to the exhaust pipe and tighten the

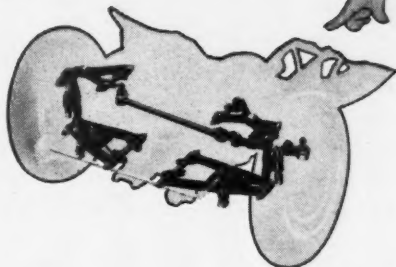


remaining bolts for a lasting job. *Frank A. D'Andrea, Frank's Service Station, 401-5th Ave., No. Pelham, N. Y.*

sell the **COMPLETE** Thompson line!



FRONT-END PARTS

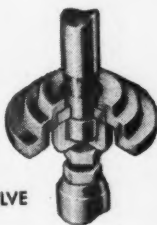


The many Thompson front end parts, used for both original equipment and replacement, include Thompson's revolutionary front suspension ball joints . . . called "the greatest advance in front suspension in 20 years".

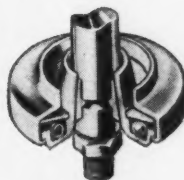
SKY-RIDE SHOCK ABSORBERS



These airplane-type shocks are custom-built to fit all cars . . . adjust automatically to all road conditions . . . have many exclusive features which make them the finest shocks on the highway today.



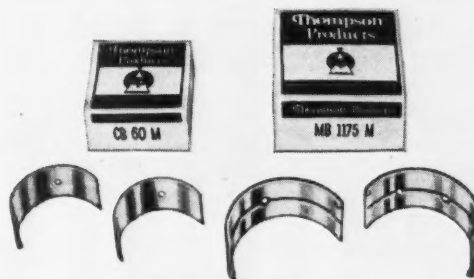
ROTOVALVE



ROTOCAP

VALVE "HEADQUARTERS"

Only Thompson, pioneer in both types of valve rotation, offers the positive-type ROTOCAP . . . release-type ROTOVALVES are also part of Thompson's complete valve rotation line. And you can depend on Thompson for the most complete line of automotive valves in the industry, as well as complete service on seats, guides, springs, retainers and keys.



ENGINE BEARINGS

A complete line of long-wearing bearings includes: Micro-babbitt (tin or lead base) bimetal; Conventional babbitt (tin or lead base) bimetal, steel back; Copper-lead bimetal, steel back; CL-77 heavy-duty tri-metal (tin-lead, nickel and copper-lead base), steel back.

AMONG automotive manufacturers, repairmen and motorists alike, the name of Thompson Products is the most widely accepted for its *complete* range of dependable replacement parts. These parts are precision-engineered to the same exacting standards as *original equipment* parts! Pictured above are only some of the many Thompson replacement parts!

STOCK the *complete* Thompson line . . .
SELL the *complete* Thompson line. When you

**Remember: stock and sell the
COMPLETE Thompson Line!**

sell a Thompson product, customer satisfaction will result in those *repeat* sales that add up to bigger, steadier profits for you the year 'round.



See your
**Thompson
Products Jobber**

THOMPSON SERVICE SALES
2209 Ashland Road • Cleveland 3, Ohio

1955 New Passenger Car Registrations by Makes by States*

STATE AND MONTH	Buick	Cadillac	Chevrolet	Chrysler	De Soto	Dodge	Ford	Hudson	Kaiser	Lincoln	Mercury	Nash	Oldsmobile	Packard	Plymouth	Pontiac	Studebaker	Willlys	Misc. Dom.	Foreign	Total
Alabama	April 746	116	2130	138	101	246	2220	30	1	24	356	59	528	32	854	639	92	3	17	8,332	
4 Mos.	2795	410	6777	489	340	998	8135	118	1	100	1244	217	1973	109	2987	2217	341	21	54	29,328	
Arizona	April 318	82	582	59	39	96	591	12	1	18	96	35	182	33	241	190	59	3	18	2,635	
4 Mos.	753	207	1623	192	119	317	1723	59	7	43	315	78	567	69	793	583	123	14	47	7,642	
Arkansas	April 334	75	1151	63	54	152	1253	30	1	19	187	32	334	29	457	302	51	2	2	4,528	
4 Mos.	1417	260	4459	303	218	701	5024	109	4	67	845	110	1474	62	1886	1350	247	18	5	18,540	
California	April 7337	1719	11801	1205	855	2276	11385	478	12	338	3987	1043	4658	531	4613	4183	1129	44	2	1209	58,785
4 Mos.	26387	6207	38957	4899	3326	8418	39207	1333	84	1160	13206	2727	16715	1474	16673	14933	3780	220	9	4594	204,309
Colorado	April 422	130	1272	179	94	211	1452	63	3	42	324	103	448	51	437	401	86	1	19	5,735	
4 Mos.	1662	468	4039	619	310	723	4552	197	3	127	1022	285	1536	120	1575	1412	291	11	86	19,037	
Connecticut	April 1128	246	1991	342	197	477	2032	128	3	58	573	240	882	126	1104	764	198	20	187	10,706	
4 Mos.	3421	811	5942	1074	572	1506	6577	325	12	149	1600	627	2700	323	3489	2555	561	47	535	32,826	
Delaware	April 149	29	330	19	22	48	354	7	1	11	72	14	106	5	132	84	15	2	6	1,386	
4 Mos.	735	138	1525	108	103	256	1555	2	1	27	318	43	485	27	627	470	81	9	30	6,519	
Dist. of Col.	April 322	98	805	106	75	104	603	13	1	16	140	43	292	33	499	301	40	1	44	3,536	
4 Mos.	972	301	2394	274	213	405	1919	45	6	41	412	116	906	74	1618	857	117	5	89	10,764	
Florida	April 1559	429	3861	387	244	589	3871	106	1	85	842	176	1339	130	1320	1188	227	12	148	16,514	
4 Mos.	5757	1618	13411	1340	836	1974	14435	345	9	356	2769	506	4817	359	5248	4028	849	59	6	495	59,327
Georgia	April 672	87	1740	97	83	227	2095	9	1	18	353	53	516	35	543	667	108	3	3	7,328	
4 Mos.	4347	664	11110	765	514	1757	11686	62	16	150	2044	309	3143	179	3885	3814	766	39	13	97	45,340
Idaho	April 307	56	587	84	62	165	512	36	1	15	141	61	208	24	237	236	85	6	4	2,828	
4 Mos.	878	175	1435	239	158	400	1293	77	3	40	393	129	641	46	620	660	204	21	9	7,421	
Illinois	April 5371	1067	9520	1046	744	1776	8302	735	6	213	2263	639	4266	466	4542	3050	622	45	102	44,877	
4 Mos.	17825	4190	26709	4115	2657	6124	28155	1990	32	701	7855	2338	14722	1303	16081	10687	2269	181	48	299	150,391
Indiana	April 2465	398	4798	500	514	1044	4646	163	1	72	1035	347	1763	171	2227	1696	764	29	33	22,886	
4 Mos.	7556	1444	13840	1776	1611	3280	15417	472	17	248	3121	896	5387	474	6949	5475	2331	100	1	83	70,490
Iowa	April 459	80	1266	104	74	242	1246	42	2	18	291	66	361	44	512	382	97	4	13	5,328	
4 Mos.	2830	478	6941	713	475	1356	6895	153	10	91	1455	279	2415	178	2898	2289	524	22	2	30	10,947
Kansas	April 895	162	2296	216	147	403	2279	70	1	31	427	199	729	60	987	948	138	5	37	10,009	
4 Mos.	2941	534	6636	667	467	1254	7127	210	10	115	1457	534	2365	193	2919	2825	502	33	2	40	30,821
Kentucky	April 854	96	1852	141	99	298	1759	37	1	13	273	83	537	48	735	523	95	13	4	7,481	
4 Mos.	2647	329	6203	492	347	1057	5932	109	4	49	958	254	1745	150	2348	1692	406	40	1	12	24,776
Louisiana	April 646	112	1889	85	72	242	2182	21	2	16	302	42	596	45	746	651	129	4	12	7,794	
4 Mos.	2318	450	6988	478	370	1025	8447	64	8	87	1199	154	2267	134	2785	2510	510	22	1	48	29,865
Maine	April 312	51	874	78	81	164	670	41	1	11	194	75	213	29	433	262	69	10	23	3,991	
4 Mos.	706	124	1917	173	159	353	1753	79	3	26	398	158	494	55	967	607	180	23	51	8,208	
Maryland	April 949	162	2429	197	189	479	2145	45	2	38	484	118	747	94	1108	704	187	8	31	10,096	
4 Mos.	3704	636	8689	782	711	1701	7717	196	6	113	1557	353	2538	233	4271	2856	622	29	119	36,813	
Massachusetts	April 2064	294	3863	484	414	889	3948	189	5	78	805	538	1736	152	2065	1373	224	12	1	143	19,077
4 Mos.	6639	1135	11944	1651	1307	2547	13279	496	17	285	2711	1317	5859	436	6788	4697	710	56	2	514	62,370
Michigan	April 5810	978	10210	896	734	2231	10582	259	4	169	2546	546	3835	387	4402	3356	393	30	68	47,436	
4 Mos.	19754	4691	34498	3443	2531	7846	38929	747	27	629	8136	1502	12888	1160	14581	11705	1378	110	233	162,580	
Minnesota	April 1031	175	2381	247	229	552	2775	71	3	72	397	143	1034	113	1039	767	261	12	13	11,315	
4 Mos.	3808	737	7086	923	813	1564	9424	209	12	168	1595	407	3718	303	3504	2823	797	57	53	37,999	
Mississippi	April 535	84	1458	105	90	222	1335	35	1	16	230	32	356	30	648	394	78	1	2	5,651	
4 Mos.	1901	292	4819	333	305	684	4866	84	4	55	784	102	1283	72	2171	1419	266	18	8	19,464	
Missouri	April 1435	227	3632	256	278	541	3598	60	7	37	736	172	1245	91	1776	1209	211	16	29	15,547	
4 Mos.	5200	921	11257	1058	983	1887	12998	170	14	176	2649	509	4489	243	6038	4140	785	50	4	83	53,652
Montana	April 173	47	559	50	43	120	504	44	1	13	103	31	180	35	164	210	58	5	3	2,342	
4 Mos.	579	173	1565	193	125	401	1554	97	2	34	320	70	622	76	565	515	185	12	1	7,097	
Nebraska	April 632	105	1149	117	82	206	1252	31	1	20	303	63	416	41	520	429	75	7	8	5,458	
4 Mos.	2375	375	4304	541	333	892	5254	72	5	79	1055	171	1588	121	1984	1594	337	25	15	21,090	
Nevada	April 111	28	161	35	18	56	170	3	1	11	54	9	107	26	75	61	65	1	21	1,012	
4 Mos.	322	79	480	111	75	148	556	9	1	26	146	31	296	58	286	235	196	1	54	3,109	
New Hampshire	April 290	45	906	74	61	200	615	62	1	14	161	90	223	32	335	310	69	6	26	3,321	
4 Mos.	604	94	1859	147	122	357	1389	112	2	43	315	151	449	65	689	641	137	12	68	7,258	
New Jersey	April 3068	617	4424	817	610	1105	4458	198	1	107	1333	335	1965	282	2650	1811	370	29	201	24,382	
4 Mos.	10233	2175	14165	2958	2216	3674	14957	589	21	326	4671	936	6850	851	9207	6447	1308	92	3	563	82,222
New Mexico	April 292	31	593	84	25	98	512	6	1	19	149	24	198	21	193	245	48	4	8	2,550	
4 Mos.	897	141	1651	213	94	301	1615	24	1	46	407	53	653	44	614	757	147	11	26	7,695	
New York	April 8214	1761	13563	2249	1508	3173	12060	519	26	344	3508	1092	6254	745	7253	5002	882	103	3	663	68,922
4 Mos.	24786	5830	39864	7514	4767	9954	34810	1177	101	1024	10155	2889	20910	1897	23202	16354	2884	305	18	2016	210,437
North Carolina	April 1089	176	2514	230	178	385	2642	51	4	41	481	102	845	75	1045	940	156	14	15	10,983	
4 Mos.	3909	664	8709	860	700	1479	9658	151	12	131	1650	260	2995	201	3442	3132	545	70	1	64	38,633
North Dakota	April 144	34	434	43	46	108	466	11	2	10	114	33	158	16	244	108	41	3	2	2,017	
4 Mos.	483	128	1121	193	168	351	1328	20	3	22	331	79	573	53	789	403	110	7	2	6,164	
Ohio	April 4932	755	8360	1046	882	2132	8193	310	7	180	2250	578	3338	403	4174	3258	499	99	1	97	41,494
4 Mos.	16349	3220	24833	3784	3147	7209	30021	937	60	624	7637	1682	11252	1251	13817	11043	1829	429	11	357	139,482
Oklahoma	April 815	141	1874	116	116	253	1913	40	1	22	409	87	716	45	530	680	106	3	16	7,8	

Independents: Get your fair share of this bigger Ford business!



Alert independents are displaying the Genuine Ford Parts Sign and pulling in their share of the increased number of Fords on the road. Here's all you have to do to get it!*

JUST MAIL in the coupon below—and we'll let you know how easy it is to have a Genuine Ford Parts oval working for you. It's the sign that Ford owners look for when repairs or replacement parts are needed. When they see that *you're* set up to take care of their special needs, they're more likely to give *you* their business.

And what a business it is!

Because Ford *continues* to sell at a leadership pace—there are more Fords on the road now than

*R. L. Polk & Co. estimates more than 665,000 Ford cars and trucks on the road in 1954 over 1953, a total of 10,393,512! And still going up.

ever before. So mail the coupon today—and get ready to pull in your share of this increased Ford traffic. Lots of it passes your door daily!

PARTS AND SERVICE SALES DEPARTMENT

Ford Division, Ford Motor Company, Box 658, Dearborn, Mich.

Please send complete information telling me how independent garages can get a Genuine Ford Parts sign. I'd like to cash in on this, too!

FIRM NAME _____

INDIVIDUAL'S NAME _____

ADDRESS _____

CITY _____ STATE _____ H

Parts Are Needed . . . Continued from Page 43

as a whole. The replacement parts manufacturer, the automotive jobbers and the automotive retailers in various sections of the country are vitally interested in the answers to two questions. (1) Is there a concentration anywhere in the country of cars in the serviceable age group—and, (2) is there a preponderance of old cars in any area

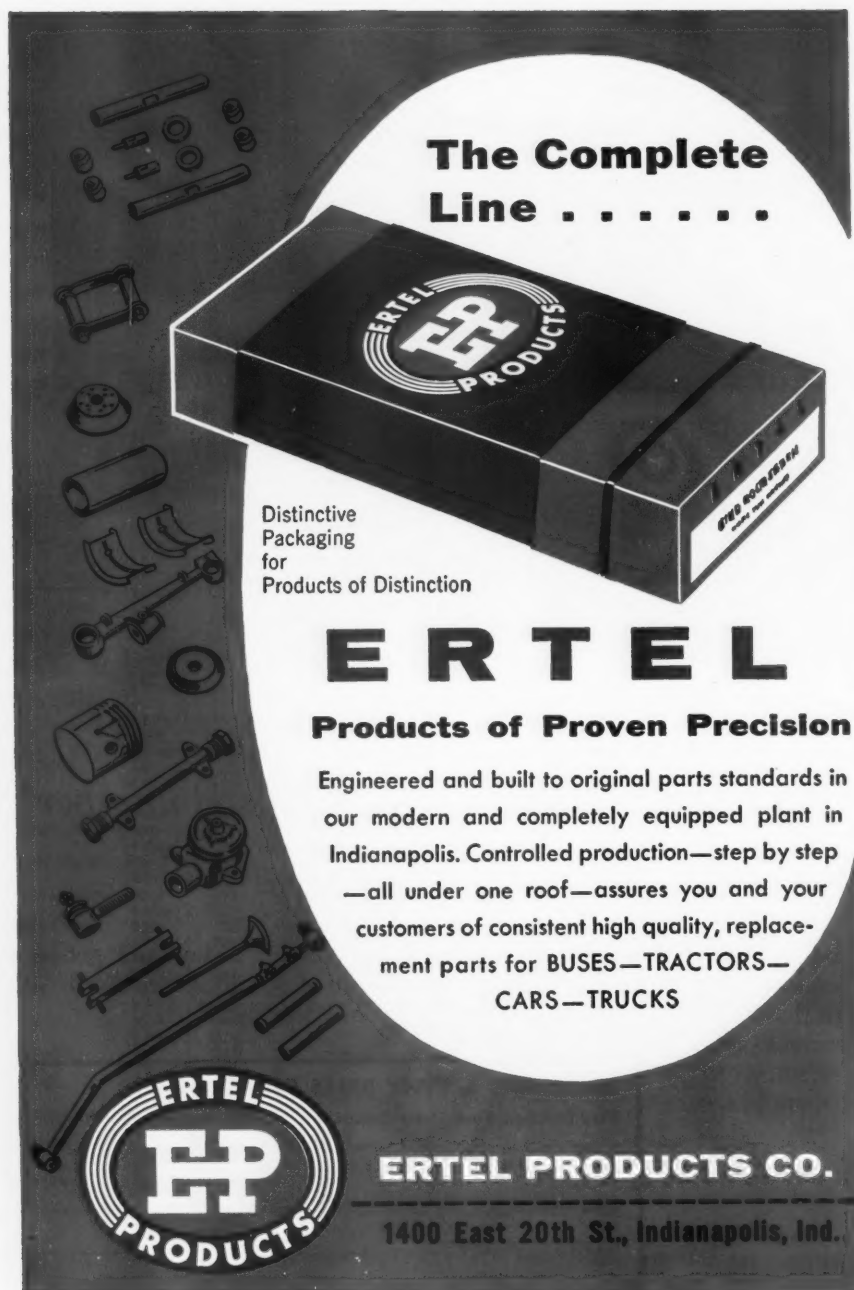
or areas of the United States?

It is to answer these questions that this analysis of cars in use has been made. Based on a listing of cars in use by makes, by states and by year of manufacture which appeared in our affiliate publication *Automotive Industries* we are able to give you, published for the first time to the best of our knowledge,

a breakdown of registrations by Age Groups, by Regions, by Geographical Divisions and by States.

The Regional distribution will be found on the accompanying map of the United States. The Geographical Divisions and State analyses will be found in the tabulations shown on these pages. In general, it appears at first glance as though the variations of cars in use by age groups are slight throughout the country. However, closer inspection brings out many interesting points:

The Mountain and Pacific Coast states which combine to form the West region have the lowest percentage of cars less than four years of age of any group of states throughout the country. Only 34 per cent of their cars in use are in this age bracket as compared with 41 per cent in the North Central states, 41 per cent in the North East states and 39 per cent in the South.



The Complete Line

Distinctive Packaging for Products of Distinction

ERTEL

Products of Proven Precision

Engineered and built to original parts standards in our modern and completely equipped plant in Indianapolis. Controlled production—step by step—all under one roof—assures you and your customers of consistent high quality, replacement parts for BUSES—TRACTORS—CARS—TRUCKS

ERTEL PRODUCTS CO.
1400 East 20th St., Indianapolis, Ind.



Even in the four to nine age group of cars this same region runs behind the rest of the country. Only 40.5 per cent of its cars are in this bracket as compared with 42.2 per cent for the North Central states, 40.9 per cent for the North East states and 42.7 per cent for the states of the South region.

However, in the nine years or older category the West region predominates the remainder of the country. Over one quarter of the cars from the Rockies to the West

(Continued on page 98)

See it! Compare it!

DISCOVER WHY THOUSANDS ARE CHOOSING

Service Chief



Only Blackhawk gives you:

Safe, one-hand release!

No loose handle!

Tricycle Positioning

● Here's the jack that's become the fastest selling "one end" bumper lift on the market!

Thousands of service stations and shops already have it in rugged use. Reports from happy users everywhere praise its unmatched speed, portability and safety. They saw, they compared, they bought!

You really can't handle modern cars the *right* way without a "one end" bumper lift—and no other jack does the trick like "Service Chief". It's the fastest, safest jack made for tire changes, wash jobs, wheel rotation, brake service, chain installation, body and fender work and many other service operations.

Make more money on fixed-rate jobs with the speed and efficiency of "Service Chief". Get one—better still, two—from your Blackhawk Jobber today.

Ask for 1½-ton model SJ-25

\$89⁷⁵

suggested dealer net

Why it's the RIGHT ANSWER to "one end" bumper lifting

NEW!

- **ONE-HAND, SINGLE-MOTION** of aircraft-type control knob releases full-range safety lock and lowers the load.
- **PERMANENTLY ATTACHED HANDLE** is always ready for action—swings out of way when not in use.
- **NEVER OBSTRUCTS TRUNK.**
- **FAST, EASY LOCATING UNDER BUMPER** because of tricycle positioning.
- **BUILT LIKE A LIFT TRUCK!** Rugged! Fully enclosed. High lift exposes full wheel.
- **FITS ALL BUMPERS**—no air hoses—fully hydraulic.

BLACKHAWK

A product of Blackhawk Mfg. Co. Dept. J-675, Milwaukee 46, Wis.



Parts Are Needed . . . Continued from Page 96

Coast are in this age group, while the other three regions vary only slightly from 16.5 per cent for the North Central states to 17.2 and 17.9 per cent respectively for the North East and the South.

Breaking the country down to the smaller areas of the nine Geographical Divisions it is again apparent that the Pacific Coast states have the least percentages of cars

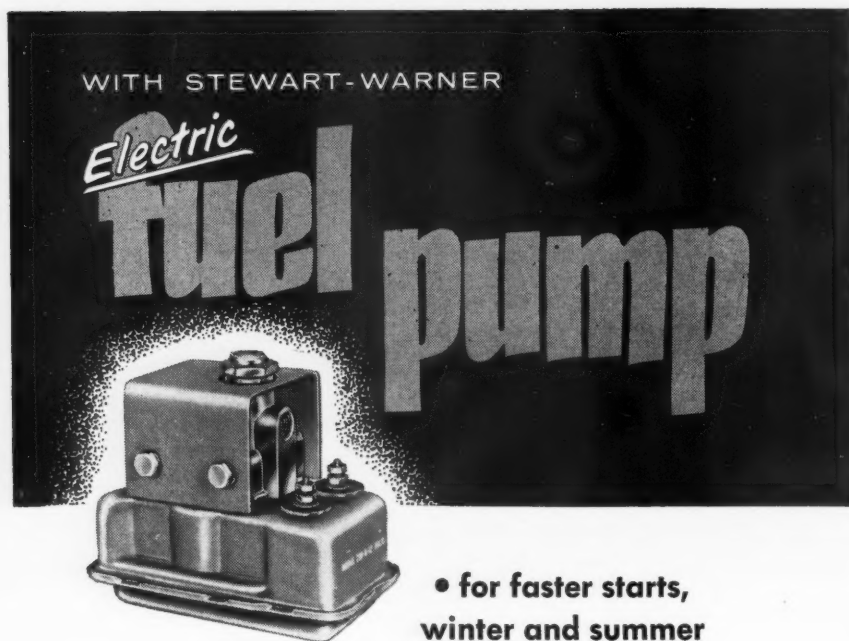
under four years of age and four to nine years of age, but excell the eight other divisions in their proportion of the cars in use in that area. The East North Central states have the highest percentage of cars under four years of age and the lowest per cent of old automobiles or those nine or more years old.

On the state basis Michigan leads

the field with over 50 per cent of its cars being under four years of age. The state of Washington is at the bottom of the list with only 32.4 per cent of its cars in this group. In the four to nine years old group Ohio has the highest percentage with 44.95 while Michigan has the lowest with 39.17 per cent. For cars nine or more years old California leads with 27.42 per cent as against the District of Columbia which has only 8.68 per cent of its registrations in that category.

Just a few of the highlights in this study have been brought to your attention. Replacement parts and accessory manufacturers as well as individual automotive wholesalers and retailers, by a very careful study of the tabular data shown here can, no doubt, arrive at conclusions which will be extremely beneficial to them. It has been our aim to just present the facts and basic data.

show 'em how you
stop *Vapor lock*
...for good!



Here's the way to sell your customers real insurance against balky starting, frequent stalling due to "vapor lock." Sell them on the reliability, the sure response of the Stewart-Warner Electric Fuel Pump. Assures engine a positive fuel supply at all times. The result is faster starts, dependable performance, all through the year.

The minute the ignition switch is turned on, gas is fed to the engine. That's because the Stewart-Warner

Electric Fuel Pump operates independently of the engine, works only as needed, eliminates battery grind. Stalling is a thing of the past.

Heavy duty construction, sealed against rain and road-splash, protected under all conditions. Installation is simple on any truck, bus or car. And you make big profits on each unit, plus the installation charges. Order now from your Stewart-Warner jobber. Cash in on this wide-demand, easy-to-sell fuel pump!

STEWART-WARNER

Instrument Division, Dept. FF-75, 1840 Diversey Parkway, Chicago 14, Illinois

In all things, success depends upon previous preparation. Confucius

Raybestos Sparks Pre-Season Sale

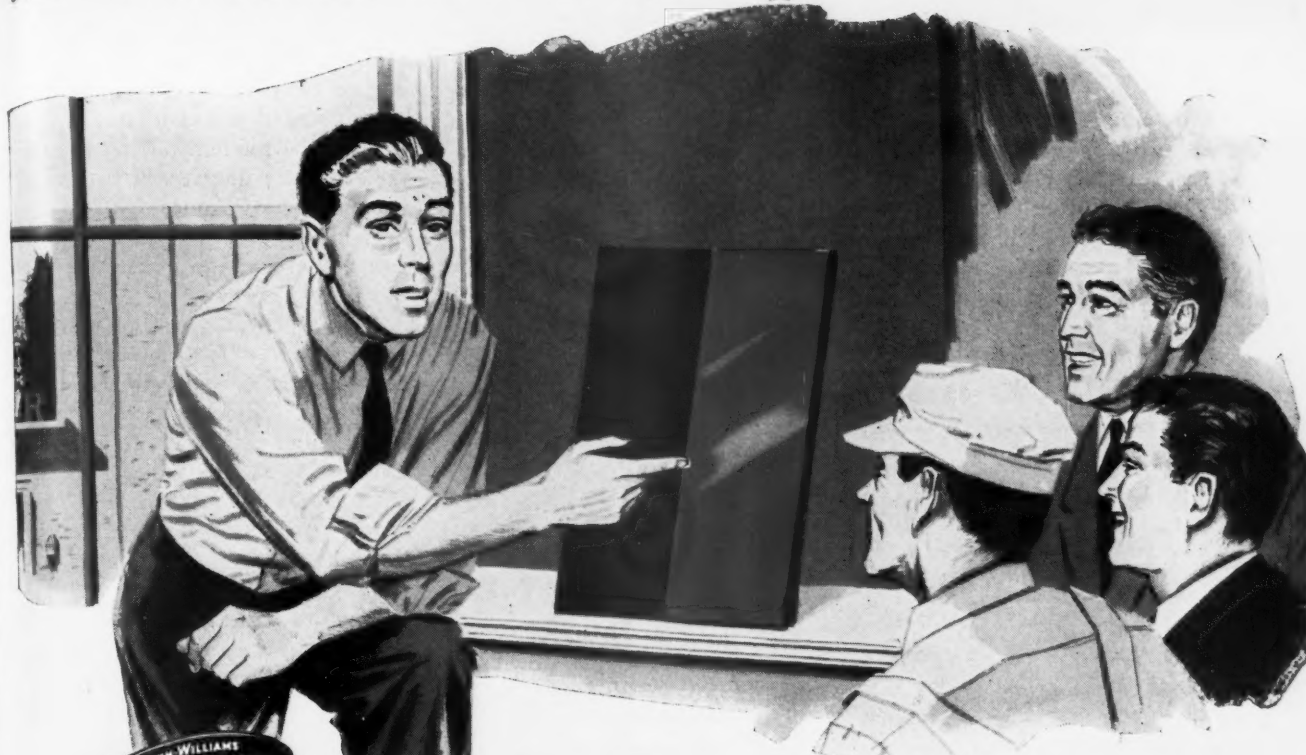
A pre-season sales campaign has begun to encourage car dealers, repair shops and service stations to replenish their stock of car heater hose during the slack summer season.

The aggressive new program by Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn., pushes the sale of car heater hose in Universal size in cartons of 50-foot lengths or coils in 250-foot reels, or refills for reels.

Dealers who order heater hose during this pre-season sales push are supplied with a fall package of selling aids.

These packages contain two-color point-of-sale cards, wall posters, streamers and sample direct-mail cards and folders. All are themed to make the customer conscious of the advantages of having his car's cooling system and heater checked before cold weather comes.

★ ONE OF THE 1955 PARADE OF NEW "OK" PRODUCTS ★



You've never seen

**an enamel primer
dry this fast before . . .
and with so much holdout!**

**NEW KEM®
RED OXIDE PRIMER
E2 R 27**

- ★ **SUPER-FAST DRYING**—like lacquer!
- ★ **SUPER HOLDOUT** and depth for color coats
- ★ **DRIES FLAT**—no sanding
- ★ **MORE COVERAGE** with less material

**Ask about all these
5 new star performers!**

- ★ **NEW OPEX "SPEED-FILL"™
PRIMER-SURFACER**
- ★ **NEW KEM RED OXIDE PRIMER**
- ★ **NEW KEM "FLO-GLO"™ REDUCER**
- ★ **NEW OPEX "POTENT"™ CONCEN-
TRATE**
- ★ **NEW OPEX "SPOT-SOLV"™
LACQUER REMOVER** *Trade-Mark

Ever wish you could work as fast with synthetic enamels as you can with lacquers? This amazing new KEM Red Oxide Primer will let you come closer to it than you ever have before!

Spray it on—it dries flat—and in 30 minutes or less you can tack and coat it! Most important, it gives you a new high degree of holdout for color coats that creates new depth and richness of color in the finished job.

You'll find this new KEM Primer E2 R 27 goes a lot further, too. Reduced with equal parts of Sherwin-Williams No. 49 or 75 Reducer, a quart is usually sufficient for the average car.

You won't believe it until you see it! Call your OK automotive jobber today—try this NEW, economical, time-saving KEM Primer on your next job!
The Sherwin-Williams Co., Automotive Division, Cleveland 1, Ohio.

SHERWIN-WILLIAMS
AUTOMOTIVE FINISHES



overlap the damage about 4 inches. Two or more layers of cloth should be used for a job. It is best to cut with the weave since the cloth is very loosely woven and will unravel easily. Also, be very sure there is enough patching material handy. There won't be time to cut more after the mix is made. Note: Keep the material DRY and CLEAN.

Mixing the Resin

This is the most critical phase of the entire operation. On proper mixing stands the success or failure of the resin repair.

Regardless of the job size the mixture is always 4 parts resin to 1 part hardener.

Using all clean materials, measure the portions accurately and

mix the resin and hardener. There is no time to lose from now on. In a room with low humidity and 70 degree temperature there is about 15 minutes of working time or "pot life" to the resin. Stirring the material while using it will reduce the chemical heat concentration and help increase the pot life. If extra time is needed to work, the container of resin may be placed in a pan of cool water or the material itself may be spread out over a larger area. It's wise to remember that the deeper the material is while being mixed or applied, the hotter the reaction will be.

If after the mixture has been prepared, it is discovered that the material is not of the right consistency, dispose of it. Usually any attempt to add ingredients to thin or thicken the substance at this point will meet with failure, because the thermal reaction has already started.

Applying the Patch

A thin layer of resin mix is first applied to the surface with a table-spoon or paddle. Then apply one fiberglass patch smoothing out all wrinkles. Now saturate the cloth with resin mix but not thickly enough to run off a vertical surface. If the lay up is necessarily large then saturate the cloth before application.

Note: Regardless of the type of application always try to eliminate all air bubbles from the lay up immediately with a slight pressure on the paddle.

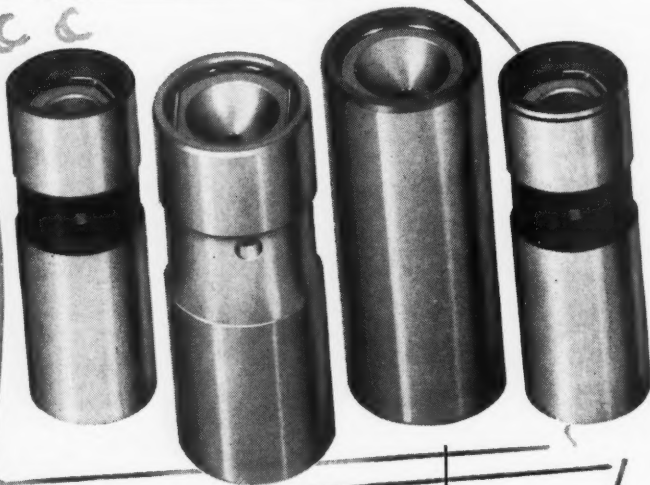
Continue to add layers of cloth to obtain a build up slightly higher than the contour of the panel. The high build up permits proper filing and sanding operations. Some lay ups may require a covering of wax paper or Saran wrap to hold them in place until dry. This covering also helps prevent moisture from reaching the patch.

When the lay up is complete, allow it to cure. If desired, the curing process can be speeded with heat lamps placed at least ten inches from the work to avoid overheating the material.

Give the patch time to reach the gel stage (tacky) and then trim off the excess material. To check for the completed cure, use the finger-

(Continued on page 104)

Good news for your cash register



JOHNSON HYDRAULIC TAPPETS for REPLACEMENT

Made to meet the demands for a tremendous tappet replacement market by a pioneer manufacturer of hydraulic tappets; backed by the fine performance reputation of long established Johnson Adjustable Replacement Tappets.

Easy to install during valve jobs or any other time.

"Equal to or better than original equipment."

See your jobber and order today!



For many years, Johnson has also been serving the replacement tappet field with the original Johnson Adjustable Tappet for Ford and Mercury V-8's. Millions of these tappets are in use today.

now available for
BUICK
Straight 8 1949-53

CADILLAC
1949-54

OLDSMOBILE
1949-54

CHEVROLET
With P/G 1950-53

"Tappets are our business"

JOHNSON JP PRODUCTS

INC.

MUSKEGON, MICHIGAN

"Royal Triton 10-30..."

the oil I recommend for our V-8s."



*Ed Schmitz, manager of lubrication department,
Robert H. Boney, Dodge & Plymouth dealer, Anaheim, California.*



"Union's Royal Triton 10-30...that's the oil I recommend for our V-8s, especially. And I imagine I put it in 90% of these cars I service, because once a customer has experienced the performance this oil gives his car he'll seldom settle for anything *but* Royal Triton.

"In the past four years we've built up a nice service business here, and I know that this growth is due to the confidence our customers have in us and in the Union Oil products we recommend to them."

Like Ed Schmitz, lube and service managers everywhere are finding this out —you really build customer confidence when you recommend Union Oil products like Royal Triton Motor Oil. Try it!

UNION OIL COMPANY OF CALIFORNIA

Los Angeles: Union Oil Bldg. • New York: 45 Rockefeller Plaza • Chicago: 1612 Bankers Bldg. • New Orleans: 644 National Bank of Commerce Bldg. • Atlanta: 401 Atlanta National Bldg. • Kansas City, Mo.: 612 W. 47th St.





SLIMMER THAN EVER

MEET THE NEW CHAMPION IN THE LOW-TENSION CABLE CLASS! IT'S PACKARD LOW-TENSION CABLE WITH "404" INSULATION.

Packard Low Tension Cable with New "404" Insulation!

BUT MIGHTY TOUGH!

Slimmer... because it needs no braid. That means it is easier to install in tight places. *Tougher*... its abrasion resistance is equal to lacquered braid.

Packard "404" insulation is different from ordinary commercial plastics. This compound was developed especially to meet all automotive requirements without the use of braid.

The "404" insulation is oil-proof, flame-proof, moisture-proof, acid-proof, and it does not age. Think what that means in safety and long life! It is original equipment on the majority of the new cars being made. Millions of feet are made daily for the production of cars, trucks, buses and tractors... and it is lower priced.

You will be adding accessory circuits to vehicles equipped with this cable. Get a stock of this Packard low-tension cable from your Packard jobber... also these other members of the "BIG 3" in the cable business, shown at the right.

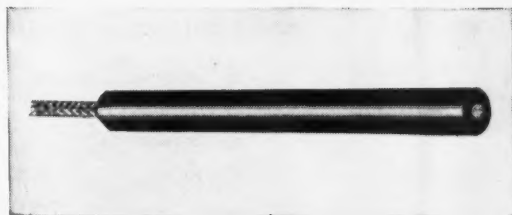


Packard Electric Division, General Motors, Warren, Ohio

FOREMOST BUILDER OF AUTOMOTIVE WIRING



PACKARD BATTERY CABLES—used on more new cars, trucks, buses, and tractors than any other make. Now Packard LEADALLOY battery cables are insulated with Packard's new "809" compound—positive protection against acid, grease, oil and heat. All Packard battery cables are built to deliver full starting power—all enjoy wide acceptance everywhere.



PACKARD TELEVISION-RADIO SUPPRESSOR IGNITION CABLE—recommended where ignition interferes with radio and television reception. Also used to suppress interference in two-way communications systems in automotive, marine, aircraft and other applications. Supplied in kits and factory-made sets.

A GENERAL MOTORS PRODUCT  A UNITED MOTORS LINE

DISTRIBUTED BY WHOLESALERS EVERYWHERE

NEW STANDARD DUTY ELECTRIC IMPACTOOL

\$94.50

NEW SIZE 4U-SD



**FOR
JOBS NOT REQUIRING
MAXIMUM POWER and SPEED!**

Now, an Impactool with world-famous Ingersoll-Rand quality at a new budget price. An ideal service station and service shop tool for jobs that do not require maximum power and speed. The 4U-SD has the same construction features and ball and cam impact mechanism proven in the I-R line of Impactools. Saves time and effort on dozens of service jobs. Handy standard attachments convert the 4U-SD from a nut runner into the following tools:

- reamer
- screw driver
- tapper
- drill
- wire brush
- hole sawer
- wood borer
- stud driver
- masonry drill

Call your Ingersoll-Rand jobber for a demonstration of this new popular-priced Impactool, or any tool in the I-R line.

18-264

Ingersoll-Rand

11 Broadway, New York 4, N.Y.



Originators of Impactools

AIR & ELECTRIC

Fiber Glass

Continued from Page 100

nail test. Usually the patch will be cured within a few minutes but the depth of the material and other factors govern this.

Finishing

This procedure is the same as that for metal work. Use a slow speed disc sander with a No. 24 disc to grind the area to a rough contour. Take caution not to undercut the patch or additional filling will be necessary to build it up again. After roughing use a body file, working from the outside edge toward the center of the patch to prevent flat spots from developing.

When sanding and filing is completed blow the work area clean with an air hose and inspect for exposed fiber glass strands and air holes. These can be covered with a glaze coat of resin mix. If some of the fiber glass is not sealed with a glaze coat there could be refinishing problems.

Sometimes the buildup may not have been sufficient and low areas result. These can be filled with a compound of resin mix, fiber roving and filler. Then do the final sanding and filing operations.

Refinishing

Follow the same procedures as in the regular metal repair. Any small imperfections in the resin repair may be filled with body putty. Then let it dry, sand and paint.

The procedure outlined above covers resin repairs in general. Some types may call only for the addition of roving and filler to resins. Others will need layers of cloth as mentioned.

There are several precautions that must be taken when working with epoxy resins.

(a) Take care not to spill any of the resin mix on the skin or clothing. Should this happen, clean the affected part with thinner or denatured alcohol immediately. If the eyes are contacted, flush them thoroughly with water. The use of rubber gloves is recommended when making repairs even though an improved formula has been developed which has been found less

toxic to the skin. If working bare-handed, keep a rag saturated with thinner nearby to wipe them clean within the pot life of the resin.

(b) ALWAYS WORK IN A WELL VENTILATED AREA.

(c) When doing the sanding operations it is wise to use an approved respirator.

(d) During sanding and grinding operations fiber glass particles will stick to the clothing and skin causing a slight irritation until removed. A vacuum cleaner is the answer here.

The variations in the resin system's application and use are restricted only by the ingenuity of the body man handling it. Many tricks have already been discovered in the practical application of the resin repair procedures by body men attending Fisher Body classes at General Motors training centers.

One body man has found that plastic wrappings taken from new seat covers are a good substitute for wax paper in covering patches. Cardboard rollers from wax paper boxes are handy for smoothing out a lay up.

The resin repair has shown its versatility in metal work other than body panels. For example, gasoline tanks can be repaired without danger due to torch soldering. Similar work is being done successfully on radiators and mufflers.

Because of its many uses and its time and labor saving faculties, the resin repair method appears to be a sure money maker for every automotive repair shop that adopts it.

HEAVY DUTY

ELECTRIC IMPACTOOL

\$130.

NEW SIZE 5U



MAXIMUM POWER AND SPEED FOR ANY JOB!

Here is the lightest, most powerful 1/2" drive Impactool in its field. Handles all but the largest nuts and bolts on cars and trucks. Ideal for use on today's high compression, high torque engines. The new 5U gives you extra power and speed on universal joint and angle head jobs and it's multi-purpose, too. Standard attachments easily convert it from a nut runner into the following tools:

- reamer
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- tapper
- drill
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- hole sawer
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- masonry drill
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Get a demonstration of the new 5U in your shop today. Your Ingersoll-Rand jobber will arrange it at no obligation.

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AIR COMPRESSORS



IMPACTTOOLS ELECTRIC



IMPACTCUTTERS



TIRE TOOLS



AIR STARTING MOTORS

Originators of Impactools

AIR & ELECTRIC



"A strike!" he called excitedly. "No," Pop said. "Can't be that. It wouldn't start at all if you had that."

Jamison began reeling in, this time noting Pop's irony. Pop sat there absently going over some of the possible troubles in a car that was "fuzzy at high speed, stalled in traffic, wouldn't start when hot"

and a long list of other complaints he had picked up on the phone this morning. And Jamison reeled in a 2-lb. bass.

"Vapor lock," Pop mused, eyeing the flopping fish with little concern.

Jamison scowled over the tangle of his line. "It's a bass," he said, disdainfully.

At 10 o'clock the sportsman called it a day and rowed Pop back to the wharf. "I sent your car back with my man," Pop said. "You can ride in with me. He'll probably have it ready for you by now."

"No, drive me past the house," Jenkins said. "I'll clean these bass and get down to the office by noon. Bring the car over to the office when you get it operating like a 1953 Caddy should."

Pop agreed and they headed for his truck. "And don't bring it back until it is fixed," Jenkins warned. "I've had that thing looked over by a couple of would-be shops already. And they haven't made any showing yet."

Pop vowed to himself that this time they would get the fuzz out of the engine if it took three men three days to do it. Maybe even four men and four days.

Just as he drove into the shop Larry was backing the car out. "It's all ready, Pop," he said confidently. "Float lever too low. It was simply starving out at high speed."

"That sounds likely," Pop grunted. "But that wouldn't cause stalling."

"That's right," Larry admitted, losing a bit of his confidence. "Maybe the fuel pump . . ."

"Did you check it?"

"No. I just figured . . ."

"Then you got no right to figure. You ain't paid to figure. You're here to check and fix—check carefully and fix right. Now get that car into the shop and we'll do this by the numbers."

Just as Larry drove the Cadillac back into the stall Jamison himself drove up in his second car. "Sorry, Jamison, we haven't as yet found the trouble. You'll have to give us a little more time."

The fisherman laughed. "Don't worry about that, Pop. I came in to show you this new casting rod I just bought. Try that. Isn't that a beauty?"

Pop looked over the equipment with even less concern than he had viewed the morning's catch. "Bends, don't it?" he said. "Amazing what they can do with nylon these days."

"You know, I feel guilty at

(Continued on page 110)

6 NEW TIME SAVING TOOLS to make money for you!



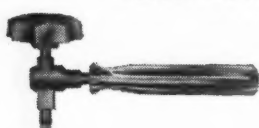
Each year's new models make your job more difficult. Today more than ever the right tools will save hours of time plus parts and reduce unnecessary delays. These are only a few of the many outstanding OTC special tools that do tough jobs fast.

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A new set of five distributor lock nut wrenches fit practically all '55 passenger car models. Make an otherwise tough job simple.

OVERHEAD VALVE TAPPET ADJUSTING TOOL



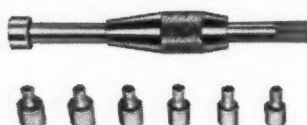
Adjust overhead valve tappets with any 1/2" square drive socket. Easy to use with handle set at 15° for clearance over hot manifolds and other obstructions.

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New door hand window crank removing tool for all Chrysler built cars. A terrific time, money and temper saver.

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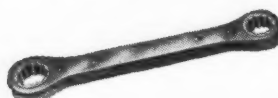
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For more satisfied customers, put High HP Purelube in every car you sell and service.

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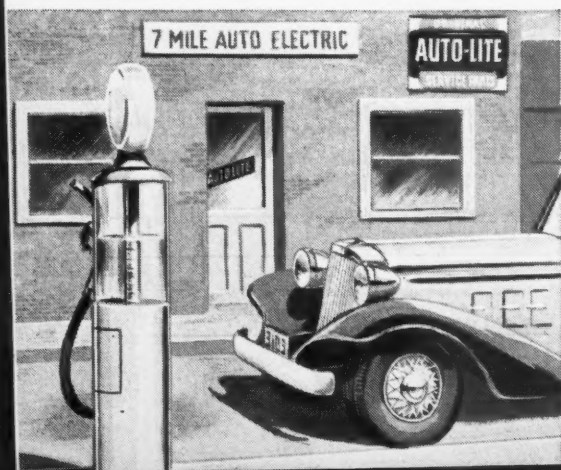
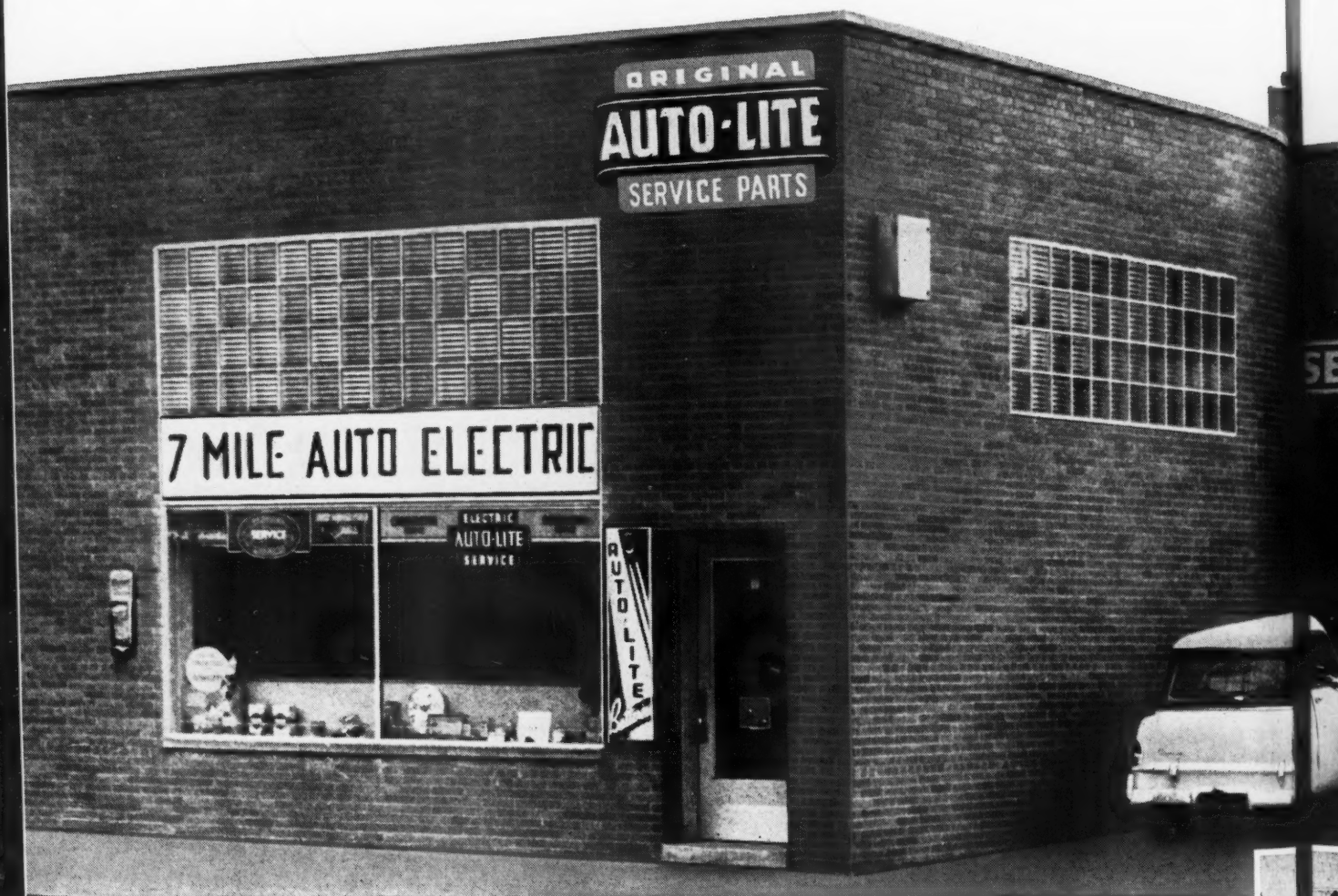
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SAYS: *John Panasuk*



◀ "It doesn't take three guesses to pick the place where I started in business," says Mr. Panasuk. "Starting as a small filling station and repair shop, doing all the work myself, Seven-Mile Auto Electric has increased twelve times in size, has floor capacity for eight to ten cars at a time, and employs half-a-dozen men to handle customer service."

Modern scientific testing equipment eliminates guesswork, results in tune-ups that sell parts and labor, build customer good will. ▶

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owner of Seven-Mile Auto Electric, Detroit, Michigan, who has built a highly successful business on original service parts.



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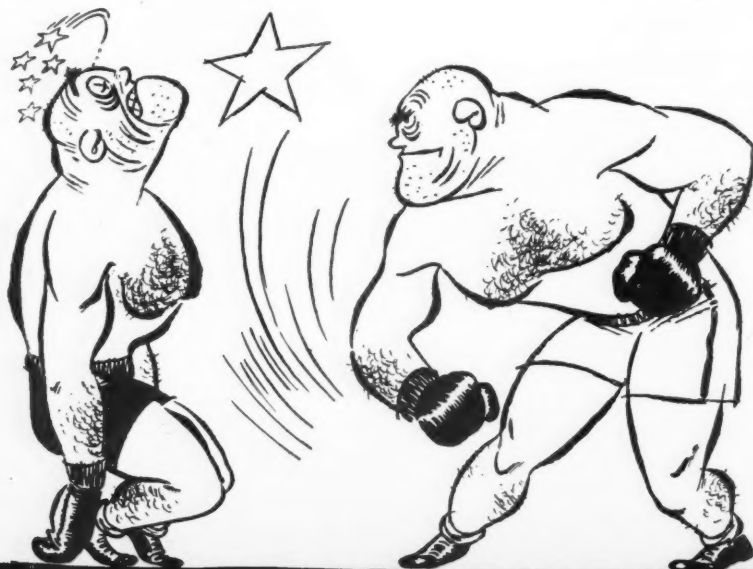
shunting off that old rod and reel on you this morning, Pop. Why, it's no wonder you didn't catch anything. But it was all I had with me."

"Oh, that don't matter. I enjoyed the boat ride," Pop smiled. "Frankly, I don't know much about fishing . . ."

"I noticed that, too. And you

know what I'm going to do for you? I'm going to take you up to a private lake in the mountains. I want you to try out this equipment. Why, man, with this we'll snag the limit before sun-up."

At the word "sun-up," Pop winced. "That's pretty early in the day, ain't it, Jamison? And I'm pretty tied up these days."



WHAT A WALLOP!

The heavy impact of Gabriel's hard-hitting advertising and promotion program is a real knockout for selling opportunities. And why not? Gabriel makes and features

... THE ONLY COMPLETE LINE OF SHOCK ABSORBERS

— all possessing Gabriel's exclusive Patented O-Ring design.

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GABRIEL *the greatest name in* **RIDE CONTROL**

will make you a big winner, too!

THE GABRIEL COMPANY Cleveland 15, Ohio

"Won't take over a day. How about tomorrow?"

Pop stalled. Fishing — before sun-up — one hundred and fifty miles to the mountains. "I'll let you know, Jamison. But I'd better get back to your job now."

"That's the boy. I knew you'd like to get some pointers. We'll make a fisherman out of you yet," Jamison laughed and bounced back to his car—his second car. "We'll finish the planning when you bring the Cadillac over this afternoon."

Pop examined his hands and went to the washroom to remove the last traces of bait stains and fish smells. Grumpily he descended upon the car of the big fisherman. "Now, how did I get into that one?" he mused to himself.

"We've found it this time for sure," Larry chuckled. "I put in a new set of plugs and she's purring as nice as you please."

Pop was not as yet convinced. "Did you check the fuel pump?"

"Yep."

"The timing?"

"Yep."

"The air cleaner for restrictions?"

"Sure did."

Pop walked around to the exhaust pipes to listen. But his eye stopped at the tail pipes. One was puffing away like a Trojan; the other was as quiet as a box factory on strike. He felt the left one—cold as a dead bass in Jamison's basket.

"Get a hammer and a can of solvent," he ordered.

"What do you want that for?"

"To fix this Cadillac, that's what for."

Larry came around to the rear of the car. "See anything peculiar around here?" Pop queried.

Larry just stood there flushing like an albino flea on a white goose. "Well, I'll be damned," he blurted. "And I thought I had checked it all out by the numbers like you said."

"Well, you may have checked, but you did it bass backwards," Pop laughed. "You tried too hard, son. But dammit, where would you be without me to keep you out of trouble?"

Larry, remembering snatches of
(Continued on page 114)

a lot IT TAKES ¹MORE THAN BEARINGS TO MAKE UP A BEARING LINE!



Next time you open a Federal-Mogul package and take out the bearing . . . think of its background. Federal-Mogul engine bearings are products of *specialized* skills and sciences. Our research, design, metallurgy and precision manu-

facturing aim for *just one goal*—the very finest in engine bearings for all your replacement needs. *Whatever* your engine bearing needs—you will find the best answer in the red-and-black Federal-Mogul package. Ask your *Federal-Mogul* jobber!

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'May I Check the Water in your Oil?'



Water in the crankcase oil is a constant threat to your customers. It is the chief cause of sludge and source of corrosive acids. Water dripping from the tail pipe—a sight familiar to most car owners—proves that engines produce water. Not all of that water runs out the ex-

haust. Some always blows by the pistons into the crankcase oil. Check the water threat by installing a Walker Oil Filter Replacement Element. It is specifically designed to remove water from oil along with other harmful contaminants . . . even of micron size.

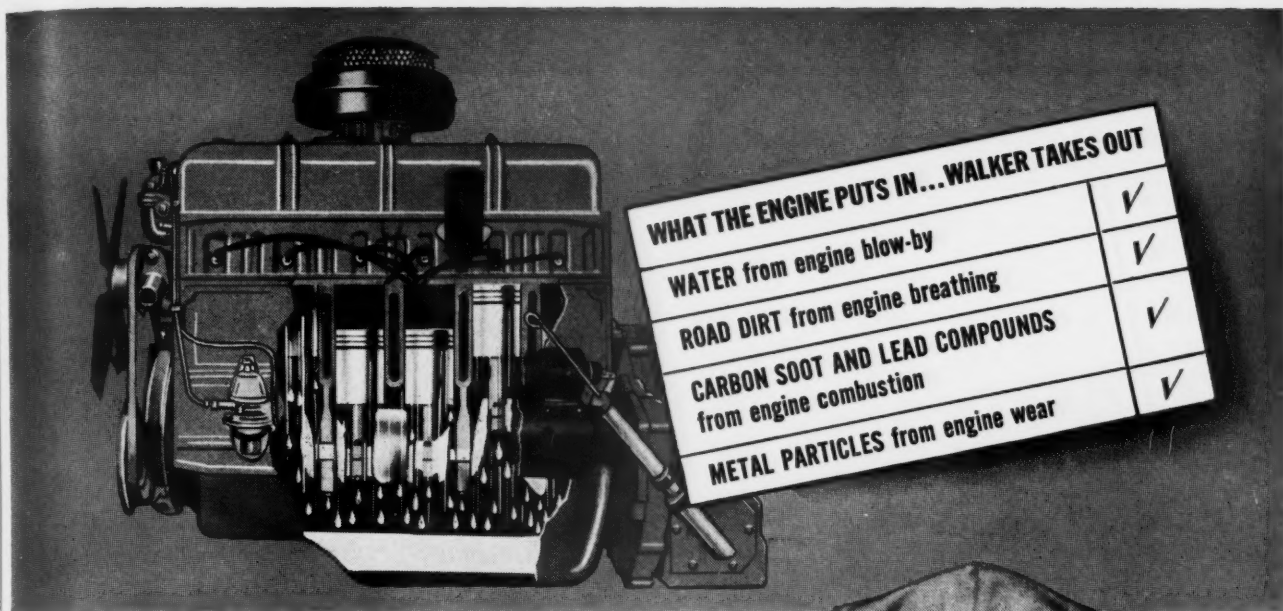
The Walker Replacement Element gives added protection in any make or type of oil filter

WALKER OIL FILTERS

WITH PATENTED *Laminar* CONSTRUCTION

Check the Water
in the Crankcase Oil





EVERY GALLON OF GASOLINE BURNED in an internal combustion engine produces a gallon of water and a varying quantity of carbon soot and lead compounds. Some of the water and other combustion by-products blow by the pistons into the crankcase oil along with dirt and dust breathed in by the engine. Even the most modern HD oils need help to prevent all those contaminants from causing costly engine wear.

Give your customers the facts...in 30 seconds

Every gallon of gasoline burned in an internal combustion engine produces a gallon of water.

Not all of that water evaporates or passes out the exhaust . . . some always blows by the pistons into the crankcase oil.

Water in the oil is the chief cause of sludge and source of corrosive acids.

Sludge and acids cause poor engine performance and costly repairs.

The Walker Oil Filter checks damage from water in the crankcase oil because it is the filter specifically designed to remove all harmful contaminants—including water.

'May I check the water in your oil?' is an important question to car owners. Be sure your customers are protected against the water threat . . . by selling them the Walker LAMINAR Replacement Element—the element that checks damage from water in crankcase oil and also removes other harmful contaminants.



WALKER MANUFACTURING COMPANY OF WISCONSIN... RACINE, WISCONSIN... OIL FILTERS... EXHAUST SILENCERS... JACKS

Pop O'Neill Continued from Page 110

Pop's conversation with Jamison and in a move to cover his embarrassment, spoke roughly. "Fishing, Pop," he snapped and headed for the tools.

It did not take long to free the damper at the manifold. "That is troubling a lot of these cars with twin tailpipes," Pop offered by way of consolation. "The high heat at

the manifold soon corrodes the valve and let one pipe do all the work. The other side never warms up so you have a back pressure and poor engine performance. I'm sure that this is all that is troubling Jamison."

The Cadillac was delivered by Larry, for reasons which are quite obvious, but the stall did not phase

the big fisherman. That evening just as Pop reached for the TV control knob, Jamison phoned. "Say, Pop," he queried. "Can your wife clean bass?"

The old man scowled into the phone. "She can."

"Good."

"But she won't." Pop smiled cruelly into the phone.

"Neither will mine . . ."

"Then we're in the same boat again," Pop said. "But I'm up that well-known tributary without a paddle, Jamison. Mrs. O'Neill is allergic to fish smells. She's been going around here with her nose up all evening long."

"So is mine." Jamison sounded relieved. "Only Minnie is pouting because of that trip we were supposed to take tomorrow. She's invited our bridge group in tomorrow night and I'm supposed to be present. Pop, would you mind if we postponed the trip?"

Pop hesitated just long enough to provide the effect he wanted. "Well, if you say so. I suppose we could postpone it. But I was looking forward to a good time tomorrow—just for the smell of it, you know . . ."

Dry Charge Battery Placed in Service

Dry charged automotive storage batteries that can be placed into service factory fresh without any type of "booster charge" are now in production by Delco Battery Operations and are available throughout the nation, H. D. Dawson, General Manager of the Delco-Remy Division of General Motors, has announced.

Even though stored on dealers' shelves for many months, the only step necessary to charge the Delco Dry Charge Battery for service is the addition of electrolyte in the battery cells, the announcement stated.

Recently devised acid-proof polyethylene containers have now made it possible to ship measured quantities of acid to battery dealers to be added to the battery at the time of delivery to the automobile owner, thus paving the way for the new development.



mechanism . . . You'll tip your hat to Aero-Seal JET, the new hose clamp with the exclusive patented feature for fastest installation and removal. Now available at no increase in price.

So easy to attach! Just push the housing to desired position on stainless steel band, snugly around hose. Threads of the worm screw drop into slots automatically. Now tighten worm screw and JET is on to stay. Easy removal: loosen worm screw, push the button and lift screwdriver head at same time—clamp springs open!

Like all Aero-Seals, JET stays put till you remove it. There's a complete choice of sizes, too.

Profits come from TURNOVER, not discounts, and new JET means business. See your jobber.



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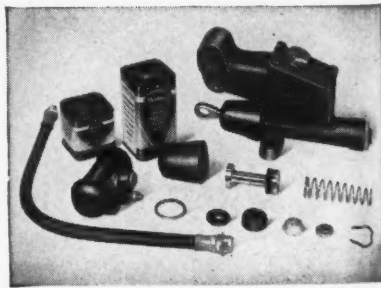
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Only two Wagner Lockheed fluids are required to meet all service needs. 21 is for passenger cars under moderate conditions. 21-B is for trucks, buses, and passenger cars where a heavy-duty type fluid is recommended. Available from your Wagner Jobber in 12 oz., quart, gallon, 5-gallon, 30-gallon, and 54-gallon containers.



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Service Suggestions

Sheet Metal Baffle

Stops Carburetor Icing

A few instances of ice formation in the Rochester carburetor venturi have been noted recently on Cadillacs. In such cases, the customer usually complains of loss of power, black smoke from the exhaust pipes, and high fuel

consumption. These conditions usually become evident after 30 to 150 miles of driving at consistent high speeds and eventually could result in stalling of the engine. The ice formation will melt and driving may be resumed after stopping for about 10 minutes.

The condition has been known to occur on 1952 through 1955

series Cadillac cars with outside temperatures ranging from 32 to 65 degrees Fahrenheit, but only on days of high relative humidity. Apparently, the increased gasoline volatility in 1955, to improve cold starting, has prompted this condition. Icing under the above conditions can be prevented by decreasing the amount of outside cold air entering the engine compartment. This will raise the temperature of the venturi and thus prevent the formation of ice.

A sheet metal baffle is now being installed in production cars to reduce the gap between the radiator upper tank and the radiator support tie bar. The baffle is obtainable from the factory parts department to correct icing conditions on 1952 through 1955 series Cadillac cars.

To install the baffle, drill two mounting holes in the radiator support tie bar, using the baffle as a template for locating the holes. Bolt the baffle in place, inserting it on the inside lower edge of the tie bar with the angle of the baffle pointing downward. The edge must be $\frac{1}{8}$ inch from the radiator upper tank and care must be exercised when inserting the baffle in position to avoid pinching the wiring harness.

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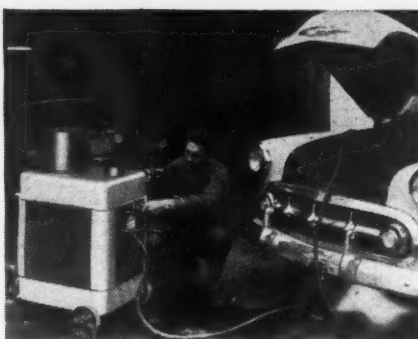
Combination

STEAM CLEANER and COOLING SYSTEM FLUSHER

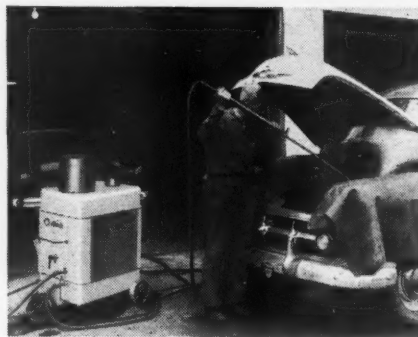
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HOMESTEAD VALVE MANUFACTURING COMPANY

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Worn Remote Shift Lever Causes Hard Shifting

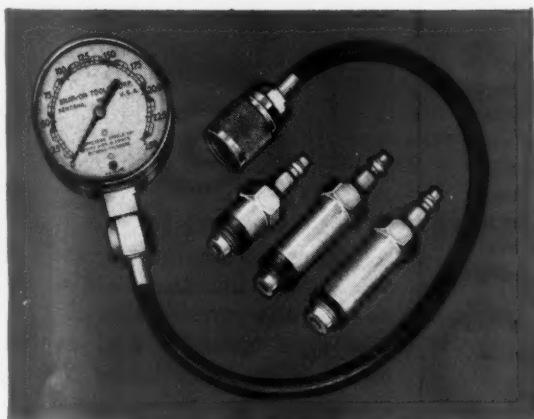
If hard shifting is encountered on a Dodge with a standard 3-speed or overdrive transmission, it is suggested that a check be made to assure that there is no interference between the gear shift lever and the transmission cover. Should interference be found, it is quite likely due to excessive wear on the pilot area of the manual remote gearshift lever shaft screw permitting excessive end play of the shaft.

To correct this condition, it should only be necessary to replace the screw. However, before installing the screw, it should be tested for proper hardness with a standard mill file. Only screws which are not file soft should be installed.

(Continued on page 120)

***Snap-on** **COMPRESSION** **TESTER MT-26**

-for faster, easier testing of late model engines

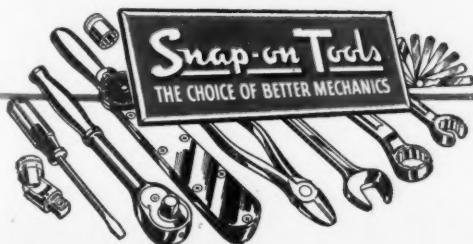


MT-26 COMPRESSION GAUGE SET with standard 14 mm adaptor, \$9.75. Set complete including 18 mm Ford adaptor and special 14 mm Chevrolet adaptor, \$12.85.

COMPRESSION TESTING of the most advanced V-8's—even where plugs have tightest clearances near fender wells, manifolds and accessories—is a cinch with this compression gauge set. The 16-inch flexible hose gives you access to the widest range of spark plug installations. A complete set of 3 adaptors (standard 14 mm, special Chevrolet 14 mm and Ford 18 mm) covers most engines.

Adaptor inserts in spark plug hole with same socket that removes plugs. Hose coupler snaps into place on adaptor, and you're ready to test. Gauge holds reading until you release coupling to test next cylinder. Calibration is in 5-pound divisions to 250 P.S.I.

Let your *Snap-on* Man demonstrate how much faster and easier this set handles compression testing on modern engines. The complete *Snap-on* catalog of more than 4,000 quality tools is free. Ask your *Snap-on* Man or write the factory.



SNAP-ON TOOLS CORPORATION

8036-G 28th Avenue • Kenosha, Wisconsin

*Snap-on is the trademark of Snap-on Tools Corporation

Service Suggestions . . Continued from Page 118

Adjusting Engine Mount Eliminates Vibration

If the vertical clearance of the engine rear support in Plymouths is reduced due to a shorter insulator spacer, the distance between the large plain washer at the bottom of the support and the frame may be closed up and result

in restricted movement of the engine and seeming harshness of engine vibration.

Proper clearance of the engine support can be obtained by installing a washer $1\frac{1}{8}$ inches in diameter x $1/16$ to $3/32$ inch thick x $1/2$ inch hole between the lower end of the insulator spacer assembly and the large washer. A

washer should be put on both right and left engine rear mounts. The rubber washer on the left engine mount should be installed above the extra washer. This washer eliminates the transfer of noise on rapid acceleration. Make certain the correct type rubber insulator is used. Use of a harder insulator will cause transfer of engine vibration to the car.

Umbrella Type Seal Replaces O-Ring Type

A new umbrella-type seal made of synthetic rubber will replace the present O-ring type valve stem oil seal and will be used on all valves of Studebaker Commanders. To install, slip the seal over the valve stem before assembling the spring to the valve. No positioning is required. The steel umbrella-type intake valve spring



use only
**FACTORY NEW
GENUINE
BENDIX DRIVES
and
PARTS!**



Repeat business is the foundation on which service profits are built. One of the surest ways to keep customers coming back time and time again is to use only genuine parts in your repair work. When you service Bendix® Drives, be sure to use only *factory new* Bendix Drives and Parts. Your customers will get the same dependable performance built into every original Bendix Drive—performance proven by over 100,000,000 installations. Insist on *factory new* Bendix Drives and Parts when you order from your distributor.

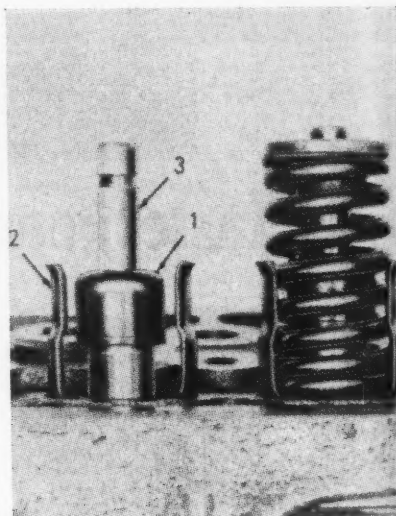
*REG. U.S. PAT. OFF.

Bendix Drive

ECLIPSE MACHINE DIVISION of
ELMIRA, NEW YORK

Export Sales: Bendix International Division, 285 East 42nd St., New York 17, New York

Bendix
AVIATION CORPORATION



retainer is eliminated and all valves will use the plain or exhaust valve type retainer. The new type umbrella seal can be used on previous model V8 engines provided the intake valve spring retainer is replaced with a plain or exhaust valve type retainer.

Check Fuel Pump When Servicing Fuel Filter

Tests have been made on a number of plugged filters from the 1955 Cadillac.

In all cases, it was found that
(Continued on page 124)

FACTS PROVE FRAM SALES POWER!

FRAM can be your #1 profit-maker!

Cartridge replacements lead *all* common replacement items—including spark plugs, batteries, mufflers, carburetors! That means you'll sell more when you offer your customer genuine FRAM!

FRAM is easy to sell with every oil change!

Oil changes lead all other services and repairs—including lube jobs, washing, brakes, tune-ups, body or fender work! Add even *more* profits to oil changes—sell a new FRAM Cartridge!

Your customers want FRAM!

Motorists prefer FRAM more than 2 to 1 over other brands . . . and in many surveys, the preference for FRAM more than equals the preference for the next two most popular brands combined!

FRAM[®]
OIL • AIR • FUEL • WATER
FILTERS



Surveys show it! Profits prove it! Sell FRAM!

FRAM CORPORATION, Providence 16, R. I.

Fram Canada Ltd., Stratford, Ont.

MAXIMUM UNDERSIDE ACCESSIBILITY

reduces
servicing time
up to 50%

You can speed and improve service on 75% of all jobs when you use a Globe "Frame-Kontakt" Hoist.

Standing erect and working freely without obstruction, mechanics reach *all* underside parts faster, easier than any other way. Needed tools are quickly obtained and there is no wasted effort spent crawling to and from the job.

Job conditions are cleaner, better. And mechanics work at maximum efficiency for low-cost results.

With a Globe "Frame-Kontakt" Hoist at every mechanic's station, volume goes up, profits go up.

Users report "133% increase in parts sales" . . . "75% increase in repair orders" . . . "89% more lube jobs."



This is the
Profit
Dimension
(You can't
make a
profit laying
down on
the job)

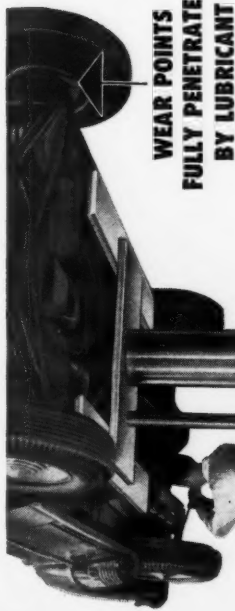
MINIMUM OBSTRUCTION
ACCOMMODATES ALL CARS
FLAT CONTACTING MEMBERS
PERMIT CROSS TRAVEL OR
PARKING WHEN HOIST
IS NOT IN USE

SIMPLIFIED SPOTTING

VISIBLE
SAFETY BAR

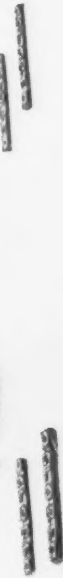
Users report "133% increase in parts sales . . . 15% increase in repair orders" . . . "89% more lube jobs."

Get complete data from your local Globe distributor. Or write to us, Globe Hoist Company, East Mermaid Lane at Queen Street, Philadelphia 18, Pa.



**WEAR POINTS
FULLY PENETRATED
BY LUBRICANT**

**SINGLE POST
"FRAME-KONTACT" HOIST
8000 lbs. capacity**



GLOBE
THE BEST LIFT

PLANTS: DES MOINES—PHILADELPHIA



"FRAME-KONTACT" HOISTS
SINGLE POST



"FRAME-KONTACT" HOISTS
TWO POST



FREE WHEEL TYPE
AUTO HOISTS



ROLL-ON TYPE
AUTO HOISTS



TWO POST
AUTO HOISTS



TWO POST
TRUCK HOISTS



FOUR POST ELECTRIC
AUTO HOISTS



WHEEL
DOLLY



TRANSMISSION
DOLLY

CYLINDERS SYNCHRONIZED
BY RUGGED, DEPENDABLE
BACK AND PINION

ONE VALVE CONTROL

LOW COST ONE-PIT
INSTALLATION

HOISTS

Trade Mark Reg. U.S. Pat. Off.

Globe "Frame-Kontakt" Hoists are made under one or more of the following U.S. Patents: 2458986—2593630—2593635—2612344—2612355—2654443. Other U.S. & Foreign Patents pending.

"Frame-Kontakt"®

Service Suggestions . . . Continued from Page 120

the filter was doing the job required—stopping all particles larger than .001 inch in diameter from getting into the carburetor and causing flooding. An analysis of the materials which plugged the filter indicated that silicon (plain sand) was the number one offender. In a few cases, however, it was noted that small pieces of

paper, similar in color to the filter element, caused the plugging. This was due to the disintegration of the fuel inlet valve gasket in the fuel pump.

While the efficiency of the pump is not usually affected by the disintegration of this gasket, servicemen should check both the pump capacity and pressure in such

cases to be positive that performance is not impaired. If pump pressure or capacity is below specifications, replace the pump if the car has been driven less than 90 days or under 4000 miles. Overhaul the pump if mileage or time is above this.

Recommended Tool to Install Valve Tappets

To simplify installation of valve tappets without removing the engine from the chassis it is recommended that a tool be made at the shop from 3/32 inch welding rod. This tool can be used to guide a valve tappet into the tappet hole

Now AUTOMATICALLY SPOT ARC WELD FROM ONE SIDE OF WORK

The Mid-States Spot Arc Welder is complete with gas controls, self-timer, heavy duty magnetic contactor and remote control circuit. It can be used with any welder of 300 amp. capacity—available in either AC or DC type.



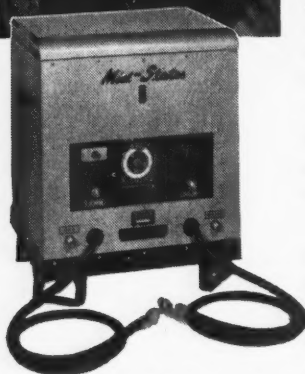
- Automatic Spot Arc Welding
- for • Inert Gas Shielded Welding
- Straight Metallic Arc Welding

Used with any AC or DC 300 amp. power source

Here's your answer to spot welding sheet metal from one side only. The new Mid-States Spot Arc Welder is ideally suited for joining light gauge stainless or mild steel sheets or sheet to heavy plate. It performs the job quickly and automatically *without danger of burn-through*. A self-timing control allows the arc to contact the work just long enough to form a spot weld then automatically stop . . . and the only contact necessary with the work is from the outside. Operators with a minimum of experience can do a perfect job with the new Mid-States Spot Arc Welder.

Truck and auto body repair shops will find the Mid-States Spot Arc Welder a real time and work saver. Body repair patches can now be quickly and easily welded from outside the body.

Flip a switch and your Mid-States Spot Arc Welder may be used for inert gas shielded welding and in addition it can be used for ordinary metallic arc welding.



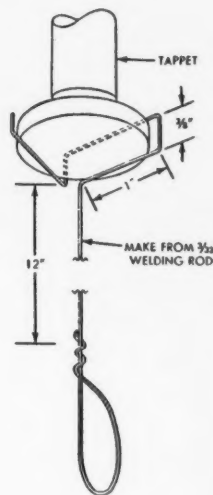
The New Mid-States Spot Arc Welder shown in use quickly spot welds metal cases from the outside. Welder power is a Mid-States Zipper.

Dealers invited—some good territories open—write for details.



Mid-States WELDER MFG. CO.

6026 SOUTH ASHLAND AVENUE • CHICAGO 36, ILL.



in the block from underneath the engine. A screwdriver or rod should then be used to push the valve tappet the full distance into the block so that the mechanic working from the top of the engine can secure the valve tappet with a spring-type clothespin.

Improved Oil Suction Pipe Cuts Loss of Prime

To eliminate the possibility of the oil pump on 6 cylinder Chevrolet engines losing prime, a new suction pipe has been released for both production and service use. This new pipe is bent in such a manner as to trap oil in the line and prevent draining of the oil

(Continued on page 126)

ROCHESTER PRODUCTS

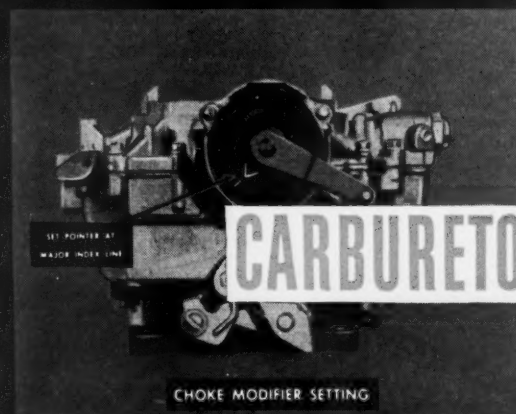
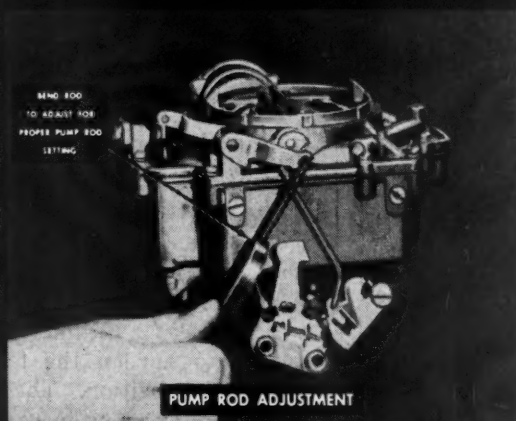
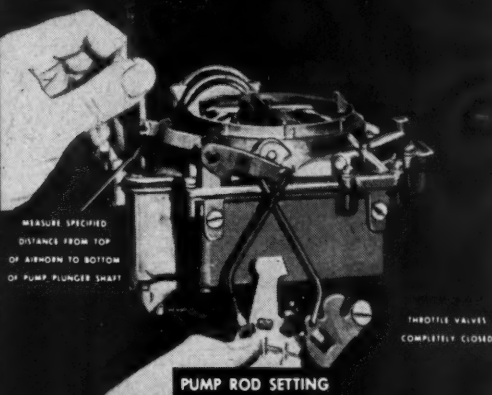
COLLEGE OF CARBURETOR KNOWLEDGE!



There's a full course in
carburetor know-how for
you at a GM Training Center!

Rapid advances in carburetor design have made up-to-date training a "must" for carburetor service specialists! To meet this need, factory-trained technicians are now conducting carburetor training courses in General Motors Training Centers across the nation! Classes include instruction by experts, technical films in color, supervised shop experience! You are eligible to attend, so don't miss this great opportunity. Remember—the more you learn, the more you'll earn! Write the United Motors Service Distributor in your area for further information—today!

ROCHESTER PRODUCTS, DIVISION OF
GENERAL MOTORS CORP., ROCHESTER, N. Y.



Service Suggestions . . Continued from Page 124

pump during oil changes.

Where cases of pump drainage during oil change resulting in loss of prime of the pump are experienced, the new suction pipe should be installed as follows: Remove oil pan from engine. Remove floating intake screen from the pipe by bending tank on float travel stop. Remove oil pump suc-

tion pipe by unscrewing it from pump cover. Clearance should be provided as necessary by rotating the crankshaft. Install a new suction pipe, tightening it in the pump cover until the lower end of the pipe is $7\frac{1}{8}$ inches below the pan gasket surface on the block. This places the tube section on which the screen pivots in a hori-

zontal position. Check the pipe for clearance at the side of the oil pan. Reinstall screen and oil pan.

1955 Exhaust Escutcheons May Be Used on 1954 Cars

A number of requests have been raised concerning the procedure and parts necessary to install the 1955 Cadillac rear bumper exhaust port escutcheons on 1954 series cars. The procedure for installing the escutcheons is as follows:

1. Remove the rear bumper assembly.
2. Remove the muffler tail pipe hanger in each rear bumper outer end.
3. Insert an exhaust port escutcheon in each bumper outer bar.
4. Install an escutcheon retaining ring pad and an escutcheon retaining ring over each escutcheon and press into place. The rear bumper outer end must be held tightly between the lip of the escutcheon and the retaining ring and pad to prevent rattles.
5. Install muffler tail pipe hanger in each rear bumper outer end.
6. Install rear bumper assembly.

The retaining ring, on early 1955 series Cadillac cars, may work loose due to insufficient retention of the teeth to the escutcheon. Later retainer rings are treated to harden the teeth and hold their position. These hardened rings are now in parts stock and should be used to correct any case of loose exhaust port escutcheons.

Own a money-making

HUNTER Wheel Balancer

for only **\$14.12** per month



Your Profits Pay for It

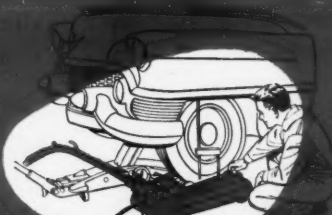
Only \$32.75 down ...
\$14.12 per month
(you'll make more on
three four-wheel jobs)
... puts you into the
profitable Hunter

wheel balancing business. This Commercial Credit Corporation time-payment plan enables you to get started now ... in plenty of time for the profitable vacation driving months ahead.

Call your jobber today. See a demonstration of the Hunter—the original on-the-car balancer that outsells all other makes combined.

**HUNTER TRU-UP
Tire Rounder**

... the perfect profit partner to the Hunter Balancer. Rounds front and rear tires on-the-car in minutes—automatic after initial setting. Puts smooth, like-new surface on tire treads without heating or burning the tire. Ask your jobber for a demonstration.





Hunter X-Act passenger car and truck wheel weights



Hunter Trim-A-Wate—the all-in-one, all-purpose wheel weight tool



HUNTER Engineering Company
Hunter Avenue and Ladue Road
St. Louis 24, Missouri

CONTACT YOUR JOBBER OR MAIL THIS COUPON

To **HUNTER ENGINEERING COMPANY** MA-75
Hunter Avenue and Ladue Road
St. Louis 24, Missouri

Please send complete information on the
☐ Hunter Tune-In Wheel Balancer and CCC Plan
☐ Hunter Tru-Up Tire Rounder

Name.....

Company.....

Address.....

City..... State.....



Schrader
#4000
Valve Core



STURDIEST BRIDGE resists damage from screwdriver tools when tightening or removing.

STRONGEST SWIVEL JOINT—will not separate when removing core.

IMPROVED PLUG GASKET—now withstands both extreme heat and cold. Wedge fit, will not distort.

SUPER SEALING SEAT—seals under higher tension—sure airtightness—finest heat and oil resisting rubber for longest service life.

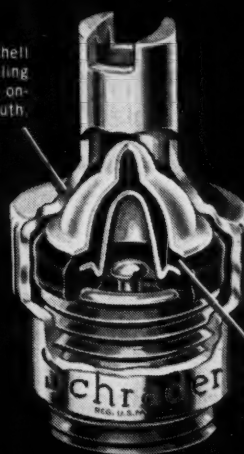
NEW HIGHER TENSION Stainless Steel SPRING—improves sealing—unaffected by heat. Spring-at-the-bottom provides obstruction-free air passage thru the top of the core.

FULL LENGTH PLUNGER PIN—guided top and bottom. Greatest travel insures easy inflation.

SPRING CUP—specially designed to align, anchor, make removal easiest.

*On long cores, the spring is never under tension until core is inserted in the valve. Then—and only then, it goes to work!

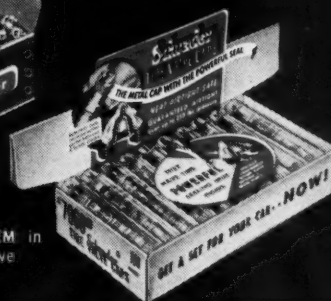
Rugged brass shell houses the sealing unit and locks it on to the valve mouth.



Schrader
#880
Valve Cap

Tough specially compounded rubber, molded between two brass plates—makes a powerful seal over valve mouth.

FOR TUBE REPAIR buy Schrader 4000 Cores and 880 and 7960 Caps in bulk



DISPLAY AND SELL 'EM in replacement sets of five

How Schrader Valve Caps and Cores keep your customers sold on you

Smart servicemen know that customers prefer a dealer who shows he's really interested in keeping their cars in the safest, finest condition. A good way to start is with the little things like checking cores and caps with an eye on his tires.

Always suggest replacing leaking cores and missing caps with a quality Schrader set to restore the tires to their *original airtightness*. This means safer, longer-lasting tires for the customer at the lowest possible expense. And the interest you've shown builds the kind of confidence that makes your customers come back to you for future needs... and all your profit-making services.

Remember, always protect your services... and your customers... by using genuine Schrader Certified Air Service Products—they're the finest you can buy. Order them from your supplier today!

NEW SAFETY SEALING

TIRE VALVE CAPS

THEY HAVE THIS POWERFUL SEALING UNIT INSIDE

NEW!

7960 Valve Caps in plastic packages. Show 'em... Sell 'em all your services. In plastic containers of five each—packed 100 Caps to a carton with display badge.

Schrader

REG. U. S. PAT. OFF.

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Incorporated
470 Vanderbilt Avenue, Brooklyn 38, N. Y.

New Products Continued from Page 88

range of from 150 to 250 pounds, has been announced by this maker. The unit is said to be capable of extinguishing 40 sq. ft. gasoline fires throughout its pressure range. It features a pistol grip trigger release mechanism, a new dust and moisture-proof gage which shows the unit's charged pressure.

319

Automatic Tire Truer

Car-Mon Prod. Co.: This all-electric unit is said to cut new tread surfaces to any radius from 5 to 13 inches with rapid adjustment and handles tires up to size 9:00. The Tred-Mill is a portable machine said to operate without being bolted down. It is powered

by a 3 hp motor and occupies 20 x 40 inches of floor space. A safety feature is the "boot" mounted over the cutting wheel. Shavings are scooped up by the machine's built-in vacuum system, the maker states.

320

Electric Polisher

General Products Development Co.: This firm has marketed an electric polisher that is said to feature a new type of machine buffing action, called trans-orbital



motion. The polishing head revolves in multiple orbits simulating the movement of hand polishing at high speed, the maker states. This light weight, easily operated machine will not burn or leave swirl marks in the car finish and eliminates the need for further hand polishing, it is claimed.

321

Rear Axle Stabilizer

Meier Engineering Corp.: A device that is claimed to eliminate rear axle clunking noises has been marketed by this maker. The "Torque-O-Matic" is said to stop axle twisting and cut out noisy springs. This unit is now available to fit Fords and Mercurys, the maker states.

322

Wire Controls

The Imperial Brass Mfg. Co.: A line of "Hi-Duty" push-pull con-
(Continued on page 132)

New way to sell shock absorbers!

BRIGGS
Hydro-Muscle®
RIDE CONTROL

• Be a ride control specialist. Sell Briggs Hydro-Muscles from high-profit, fast-action, 12-shock assortment. Potent tie-in sales tools included FREE! Ask your NAPA Jobber for the full facts.

AS ADVERTISED IN
The Saturday Evening
POST



No wonder BRIGGS business is BIG business!

HOW MIRACLE POWER® ADDS \$1500 A YEAR TO RUSSELL NITTINGER'S BANK ACCOUNT



Planned selling is the secret—it pays off in customer satisfaction with the product that lubricates when oil cannot

E. J. Dempsey, Russell E. Nittinger, Inc., Philadelphia, Pa.

"We are enjoying a plus profit of about \$1500 a year from the sale of Miracle Power alone," writes Mr. Dempsey, Business Manager for Russell E. Nittinger, Inc.

"Our entire service personnel is sold on its value and has no trouble selling the owner on its use during the entire life of his car. We automatically add Miracle Power when servicing new cars at both 300 and 1000 miles. The sale of Miracle Power has become almost automatic in our organization."

Miracle Power lubricates modern high-compression engines when oil cannot. Used in oil (8-oz. can every 1000 miles), it lubricates *all* friction surfaces *from the instant the motor starts*. Used in gas (8-oz. can every 1000 miles, 3½-oz. can between treatments), it provides lubrication even in red-hot combustion chambers. Miracle Power treats the engine, not the oil.

You can make the same kind of money Russell E. Nittinger does. Put your capital into *one* product — the one you *know* will do the job — the one that brings customers back. Put it into Miracle Power.

THE AP® Miracle Power Division
PARTS CORPORATION
N-7, AP Building Toledo 1, Ohio

MUFFLERS • PIPES • MIRACLE POWER • dgf 123

Miracle Power is available to Ford, Studebaker, International Harvester, Kaiser, Willys dealers in their own Miracle Power containers.



Ford Studebaker IH



NATIONALLY ADVERTISED in Saturday Evening Post, Farm Journal, 8 other major magazines.



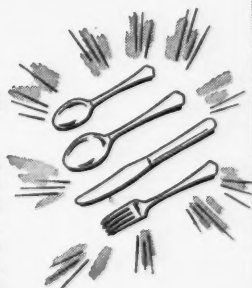
EXTRA!

FREE ISLAND RACK

Sturdy wire - and - metal rack holds 24 8-oz. cans and 14 3½-oz. cans. See your jobber!

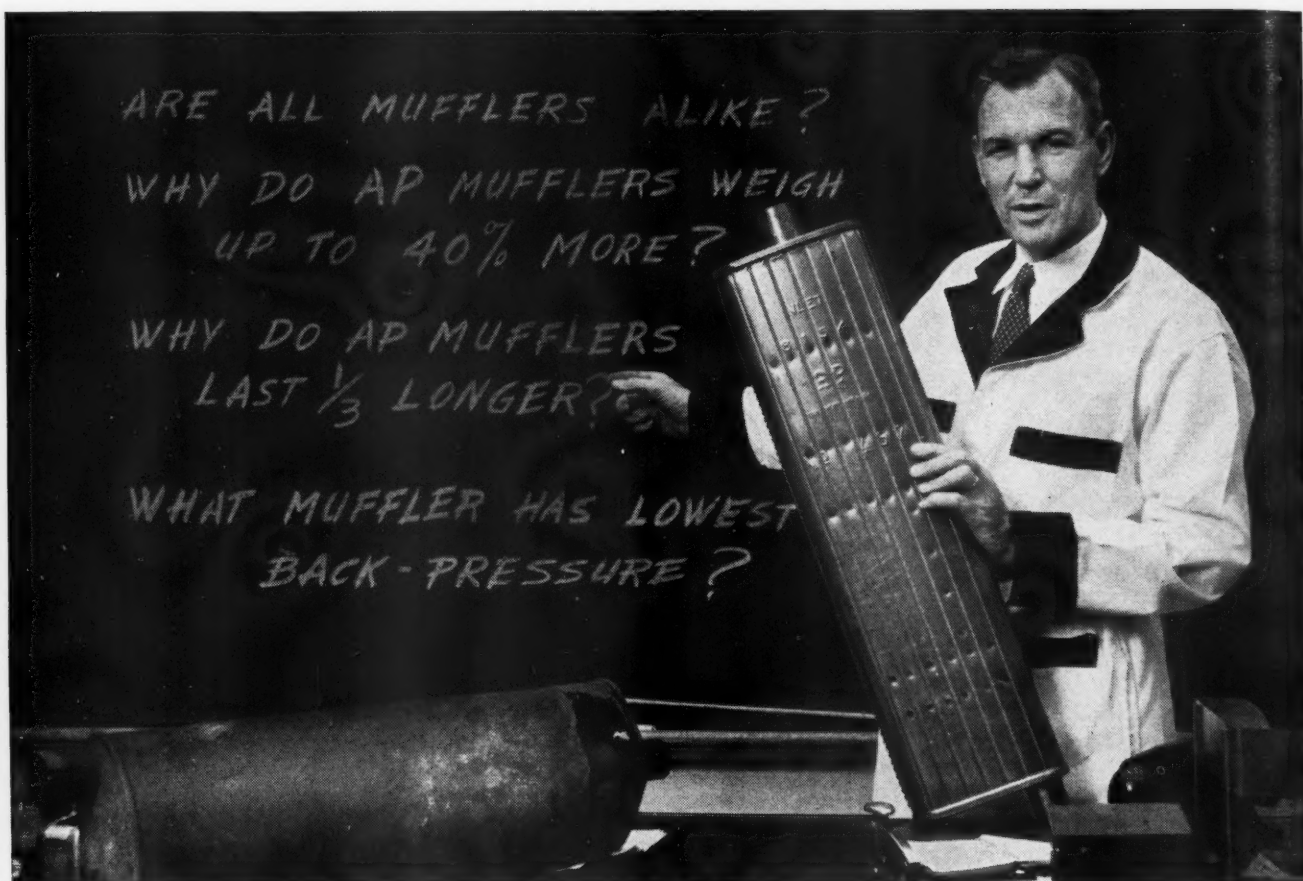
SILVERWARE SERVICE FOR 6 \$1.00

"Lady Betty" design of famous manufacturer. Two sets available—26-piece starter set and 26-piece supplementary set. Either set \$1.00 with 2-case order; both sets \$2.00 with 4-case order. See your jobber!



ALL MUFFLERS ARE NOT ALIKE...

No longer will any muffler do...



Today's motorist is out for greater horsepower, and he'll buy anything that will help him get it. Mufflers that build up big back-pressures rob him of horsepower. Today's better-breathing engines call for better-breathing (exhaling) mufflers.

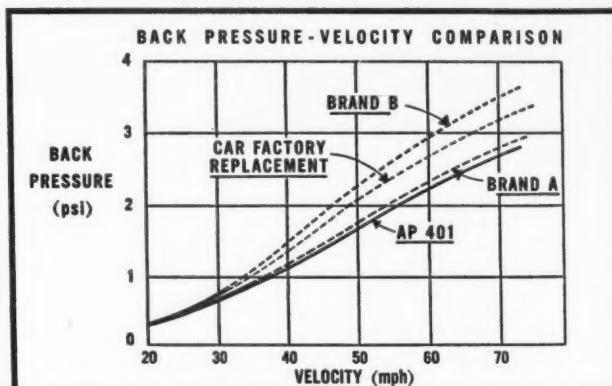
In a series of tests of all leading competitive mufflers, AP mufflers showed the least back-pressure. This low back-pressure saves gasoline, and speeds pick-up, too.

AP mufflers have many other features that make them different. Extruded holes practically eliminate clogging, and the larger tubes and chambers can handle a greater, faster exhaust flow. Double crimp-locked seams, stronger than spot welding, give greater protection against leaking—lessen the carbon monoxide danger. The patented outer shell, plus the intermediate shell, creates sound-deadening chambers that insulate against noise and heat. These better-breathing mufflers give $\frac{1}{3}$ longer life because, wherever service requirements call for it, the shells are $\frac{1}{3}$ heavier steel.

These are just a few of the many features of AP mufflers. Ask your jobber to show you the AP "Inside Story." It's an eye opener that you should be sure to see.

How to Become an AP Muffler Specialist:

Simply register with your AP wholesaler, carry a minimum basic stock, and make it routine to look at the muffler of every car that comes into your shop.



Low back-pressure in AP mufflers is clearly indicated in this chart of competitive tests with three other leading brands—one of a series that showed the AP muffler ahead every time.



BETTER-BREATHING MUFFLERS—DESIGNED FOR TODAY'S

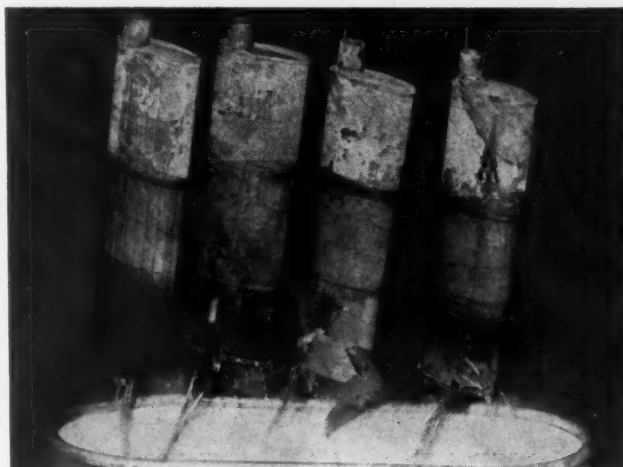
YOU GET A LOT MORE WITH AP[®]

here's the exact reason why

AP DESIGN AND HEAVIER CONSTRUCTION MEAN LONGER LIFE

Brand	Ford	% AP is heavier	Chevrolet	% AP is heavier
AP	14 3/4 lb		11 1/2 lb	
.... A	10 1/2 lb	40.5	8 lb 9 oz	34.3
.... B	11 3/4 lb	25.5	9 lb	27.8
.... C	12 lb	23.0	8 lb 11 oz	32.3
Brand	Plymouth	% AP is heavier	Hudson	% AP is heavier
AP	16 lb		12 1/4 lb	
.... A	12 lb	33.3	9 1/2 lb	28.9
.... B	12 lb	33.3	9 1/4 lb	32.4
.... C	12 1/2 lb	20.8	12 1/4 lb	*

* Car factory replacement, AP produced



Soaked in corrosive acid, like that encountered in actual operation, three leading competitive mufflers are soon eaten through. The AP muffler (extreme left) withstands this "acid test" far better than the others, lasts 1/3 longer, because of its heavier steels.

All the sales helps you need from AP



Your initial sales package will include a poster, a post card, an inspection tag, a decalcomania, classified ads, a catalog, and price sheets. Then AP mails direct to you a constant flow of additional sales aids and up-to-date price and catalog data.



Ads like this Post ad will be read by hundreds of your customers and prospects. They'll look for the sign of the AP Muffler Specialist.

HOW TO MAKE \$2000 EXTRA WITH AP

JUST 6 SALES A WEEK FOR 50 WEEKS = \$2100

	AP Muffler	AP Pipe	Labor	Daily	Yearly
You collect	\$9.00	\$5.20	\$4.00	\$18.20	\$5460
You pay	5.80	3.40	2.00	11.20	3360
You make	\$3.20	\$1.80	\$2.00	\$ 7.00	\$2100

Based on average purchase and sale prices. Labor figured on average flat rate, split 50-50 with help

THE AP PARTS CORPORATION
3-T AP Building, Toledo 1, Ohio
Mufflers and Pipes • Miracle Power • dgf 123

BETTER-BREATHING ENGINES

Chilton's MOTOR AGE, JULY, 1955

THIS FREE SIGN IDENTIFIES YOU



CHADWICK'S TRYIN' TA LINE HER UP TO DIAGNOSE AUTOMATIC TRANSMISSION PROBLEMS WHEN SOMEBODY ELSE IS USIN' OUR PRESSURE CHECKING GAUGES!

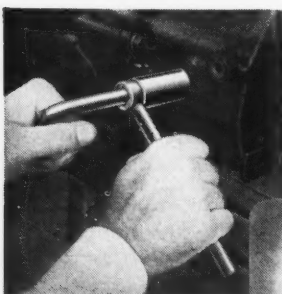


WONDERFUL TO WORK WITH KENT-MOORE **RATE-MAKER** SPECIAL SERVICE TOOLS



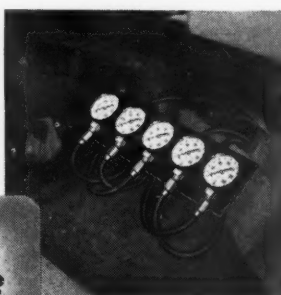
FREE! New fact-filled 12 page Manual contains complete information on entire line of Kent-Moore Tools for high-profit Hydra-Matic service. Send for your copy today!

You bet Kent-Moore Tools are wonderful to work with... and for good reasons, too! First-off they're developed in cooperation with major car manufacturers to perform factory-recommended repair operations for which no adequate standard tools exist. They save you time... lots of it... and plenty of grief to boot! They make tough jobs easy to do... and do *right* the first time... without danger of damaging parts, or busting knuckles either. What's more they assure proper service at fair flat-rate prices with positive profits for you. And they're easy to buy! Because they're available through selected jobbers.



J 4277-A Servo Band Adjusting Wrench permits proper adjusting of low servo band screw.

J 4872-A Powerglide Test Panel Set diagnoses Powerglide ills quickly, easily, accurately.

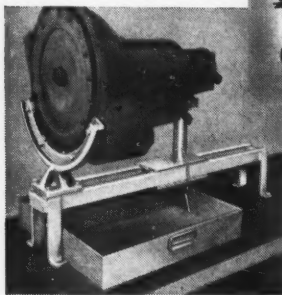


Ask your local jobber
for Kent-Moore

RATE-MAKER

SPECIAL SERVICE TOOLS

(Shown in use... typical profit-producing tools for servicing Powerglides)



J 3361-A Transmission Assembly Fixture simplifies, speeds Powerglide bench repairs.

J 4264-A Oil Filler Funnel and Tube filters fluid, prevents spillage of costly Fluid "A".



KENT-MOORE ORGANIZATION, INC.

5-105 GENERAL MOTORS BUILDING ★ DETROIT 2, MICHIGAN



New Products . . .

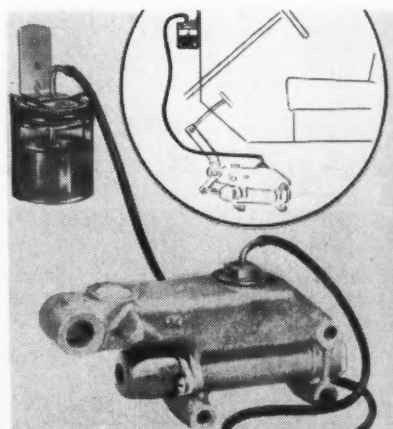
Continued from Page 128

trols that includes controls for chokes, throttles, hood release, power take-offs, hydraulic valves and pumpers has been introduced by this firm. One of the features of the new controls is the use of stainless steel inner wire which does not require lubrication, the maker states. In addition to cars, trucks and buses, the controls in this line are said to service tractors and other heavy equipment.

323

Brake Fluid Gage

Darwin Products Inc.: A brake fluid gage and reservoir through which fluid can be added to the brake system without tools, has been marketed by Darwin. A spe-



cial fitting connects to the master brake cylinder, and a flexible tube leads to a transparent reservoir mounted on the fire wall for visual checking. If needed, fluid can be added at the reservoir without danger of getting dirt into the system, it is stated.

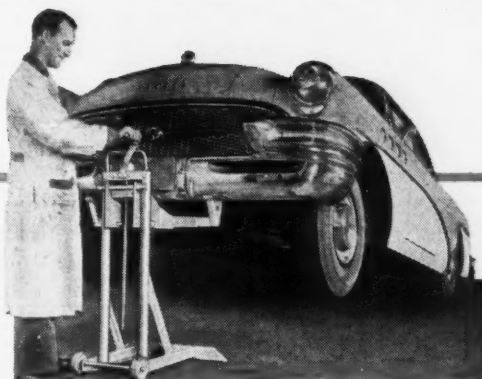
324

Engine Analyzer

King Electric Equipment Co.: Designed for 6- and 12-volt vehicles, the engine analyzer introduced by this company is said to operate from a 110-volt source of power. Housed in a Hammertex-finished cabinet of stream-lined design, the unit has stowage space accessible through a full-length door.

(Continued on page 134)

A demonstration is a sensation!



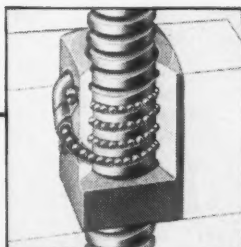
The New

"Screwball"

TRADEMARK

Twin Saddle Service Jack

is easy to operate because of patented 'Screwball' power unit



The heart and the power of the "Screwball" — a free moving stream of steel balls

The ease of operation IS an amazing sensation! Phone your jobber for a demonstration.

CHECK THESE ADVANTAGES:

- Lighter weight (only 117 lbs.) aids faster positioning.
- Short handle permits operation in close quarters.
- Safety Lock to prevent accidental lowering.
- Vital parts are plated so "Screwball" can be used for washrack service.

1½ tons capacity

\$ **68⁷⁵**

Suggested Dealer Net

Ask your jobber to let you Try it!



HEIN-WERNER CORPORATION • WAUKESHA, WISCONSIN

New Products Continued from Page 132

325

Car Squeak Detector

B & K Manufacturing Co.: A device for locating the source of car squeaks and noises under actual road conditions has been announced by this company. The detector pin-points the noise source electronically while the car is driven along the highway, the

maker claims. No training is said to be necessary to operate the device that comes in a compact case, complete with headset.

326

Pouring Spout

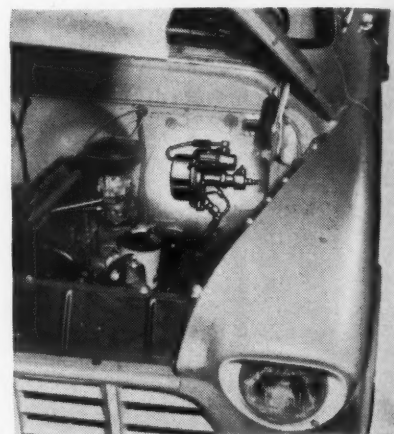
E. Edelmann & Co.: The spout introduced by this company is said

to permit the safe pouring of acid to the correct level when filling dry charge batteries. Its design insures a steady flow of acid which stops automatically when the proper level of electrolyte is reached, the maker states. Each spout comes with two interchange plastic caps to fit both types of standard acid bottles.

327

Truck Power Brake

Bendix Products Div.: A power brake for light trucks has just been introduced by this maker. The brake unit is said to be adapt-



able to all 1/2, 3/4 and 1 ton models. This brake can be mounted under the hood with pre-formed all steel tubing in about 45 minutes, the maker states.

328

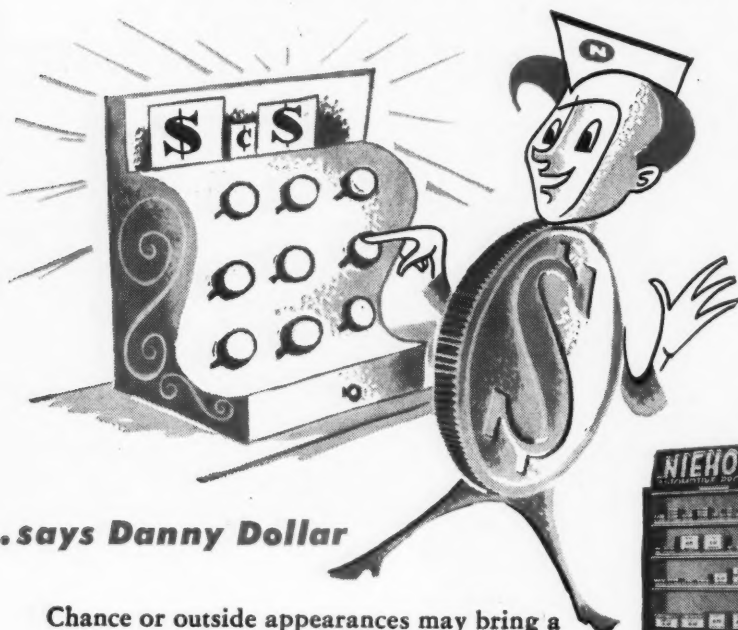
Grease Absorbent

Waverly Petroleum Products Co.: An all-purpose oil and grease absorbent for floors which is said to combine breakdown resistance with protection against slipping accidents and fire hazards has been marketed by this firm. The granular material, known as Waverly Hi-Dri is spread and allowed to remain for a day or more until it has reached the saturation point. Then it is swept up with a broom without leaving a slick on the floor, according to the company.

Success has made failures of many men. John W. Raper

QUALITY

that **RINGS** Repeats!



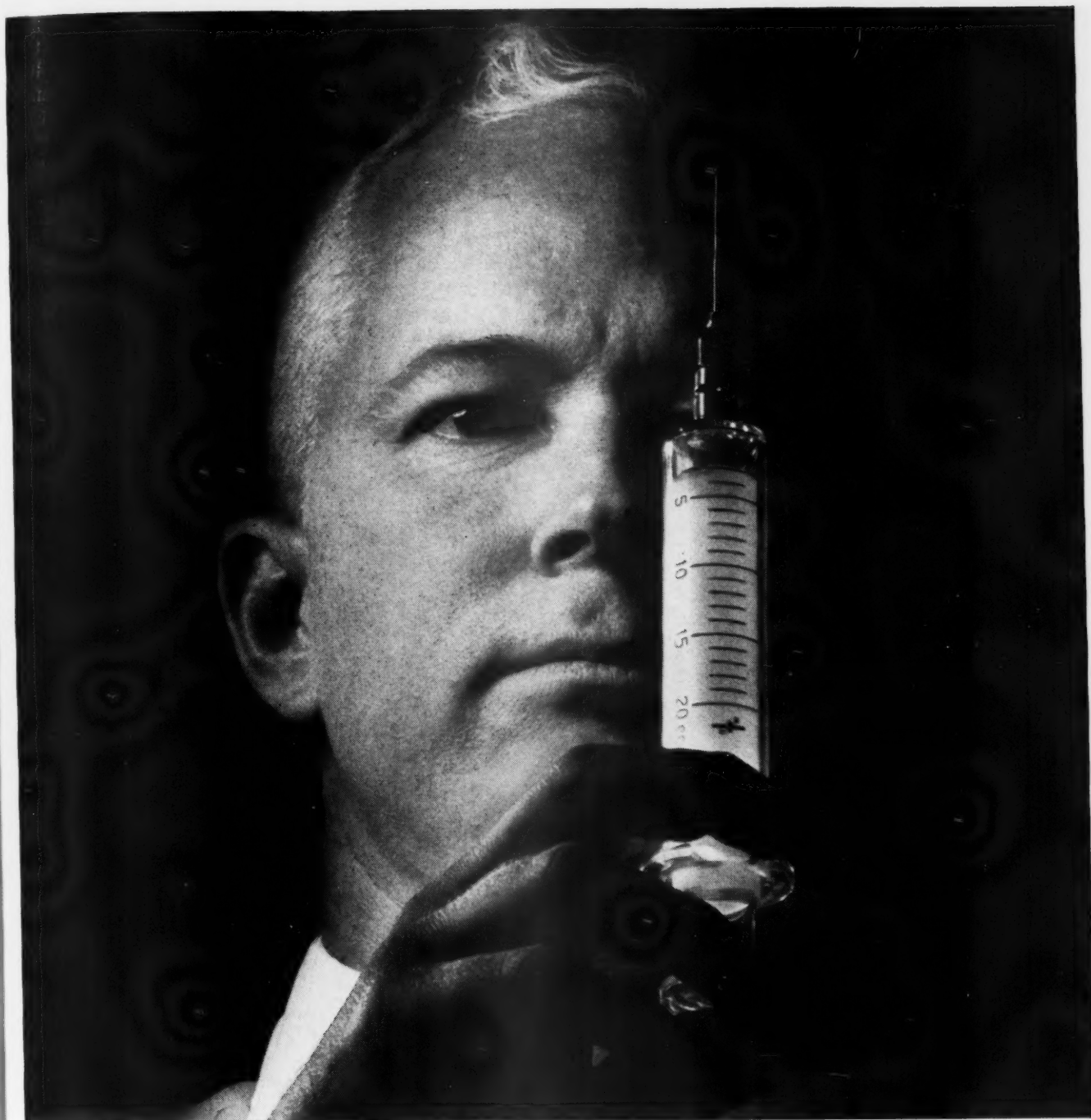
...says Danny Dollar

Chance or outside appearances may bring a customer in for the first time...but profitable repeat business is built on *quality* of parts and workmanship. It pays to guard your reputation with Niehoff Warranted Ignition Parts...precision engineered to assure performance that satisfies.

C. E. NIEHOFF & CO.

4925 W. LAWRENCE AVE. • CHICAGO, ILLINOIS

WAREHOUSES: NEW YORK 19, N.Y., 250 W. 54th Street, PHILADELPHIA, PA., 1631 Fairmont Ave. BOSTON 34, MASS., 254 Brighton Ave. BRANCHES: LOS ANGELES 15, CALIF., 1330 W. Olympic Blvd.



Henry P. Becton, Executive Vice-President of Becton, Dickinson and Company, explains

"Why a doctor must never be rushed!"

"A famous surgeon used to say to his young student doctors, 'A man with a severed carotid artery will bleed to death in three minutes. You can sew it up in two-and-a-half minutes — *if you're not in a hurry.*'"

"Everyone who serves the medical profession must know how to be quick and sure. That's why Air Express is important to us at B-D. Our customers *must* be sure they can depend on us.

"A vaccination program, or a flood, fire or explosion can mean immediate need for hypodermic syringes and needles, elastic bandages, blood donor equipment. Air Express is the sure way to get it there.

"Air Express can save you money, too. A 20-lb. shipment from Rutherford, N. J., to Des Moines, Ia., for instance, is \$8.12. That's the lowest-priced complete service by \$1.48!"



Air Express



GETS THERE FIRST via U.S. Scheduled Airlines

CALL AIR EXPRESS . . . division of RAILWAY EXPRESS AGENCY

Engines Continued from Page 45

If oil is going through combustion chamber, look for a porous vacuum pump diaphragm, worn intake and exhaust valve guides (on overhead engines), and worn intake guides on L-head engines. Last but not least, look for worn or clogged piston rings.

After checking the above points and the oil loss can be attributed to

the combustion chambers, remove the cylinder head and examine the tops of the pistons and the cylinder walls to determine if oil is passing the rings or coming through the valve guides.

An oily deposit on the top of the piston indicates that too much oil is getting into the combustion space of that cylinder.

If the underside of any intake valve head is oily and oil is in the valve port, it is likely due to a faulty vacuum pump diaphragm. If piston heads are wet with oil and the intake valve heads and ports are dry, it is likely that the oil is passing the piston rings.

Before removing the rod and piston assemblies, the ridge should be removed from the top of the cylinders. If it isn't removed first the possibility exists of bending or breaking of the piston ring land while pushing the piston out of the cylinder. After pistons are removed, measure cylinders for wear and out-of-roundness. If within the ring manufacturer's recommendation, a rebore should not be necessary.

Remove rings from pistons and remove the carbon from the ring grooves with groove cleaner and with a small drill, drill the oil return holes behind the oil rings.

When engine is apart all the

SIGN OF Dependable BRAKE SERVICE

The new EIS electrical indoor Brake Service Sign is a real EISstopper! It's moulded of durable plastic, completely wired for immediate, "silent" selling. Whether you hang it or stand it on its easel, this EIS Sign identifies you as a dependable Brake Specialist...it brings 'em in for brake work.

To get this EIS attention-getter, simply attach a dollar bill to this ad and mail to your EIS Distributor or direct to the factory.

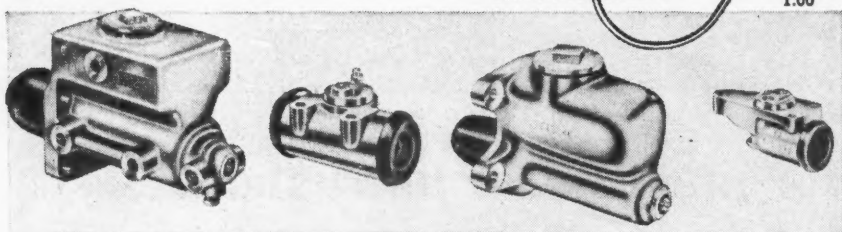
MR. JOBBER! Tell your customers about these EIS Signs! They help you—they help them. Make sure they're supplied.

ALSO AVAILABLE

- No. 63—Metal enameled sign (22" x 22") single face.
- For exterior wall use .75
- No. 64—Metal enameled sign (22" x 22") with bracket.
- For exterior use 2.00
- No. 61—Paper indoor sign (9" x 9") no charge
- No. 62—Paper indoor sign (22" x 22") no charge



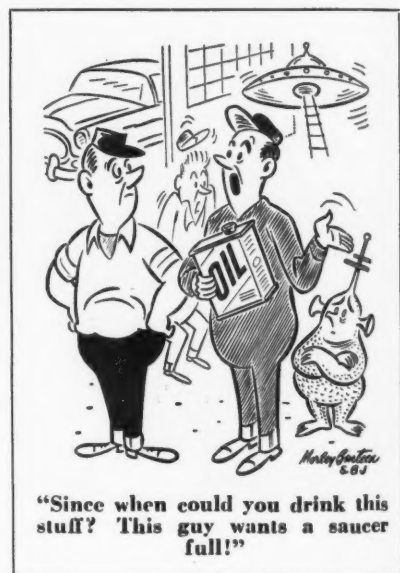
No. 65—Sign 1.00



REPLACE...REPAIR...REFILL WITH EIS



Write for Catalog: EIS AUTOMOTIVE CORP., Middletown, Conn.



sludge should be removed around the valve stems, oil pump screen, etc. Also the cylinder walls should be checked for out of roundness and taper to make sure they are within the manufacturers specifications. It is a good policy to replace connecting rod bearings after measuring the crankshaft for out of roundness and taper. The pistons should be resized and checked to the bore to make sure of a proper fit. After the engine is desludged

(Continued on page 138)

One of a series of messages outlining
6 roads to extra profits with the 'Jeep'
family of 4-wheel drive vehicles

nearly 50% clean deals!*



As a franchised dealer for the 'Jeep' family you'd have these 6 roads to extra profits

1. **Freedom from competition.** Only Willys dealers have the 'Jeep'...no worries about "wheeling and dealing" competition down the street. No loss of markets during the winter months...no lost dollars.
2. **High resale value.** The average 2-year-old Universal 'Jeep' commands 90.4% of purchase price...your assurance of customer satisfaction and profitable deals when you wash out 'Jeeps' taken in trade.
3. **High percentage of clean deals.** (As explained above).
4. **High service absorption.** Even with its famed ruggedness, the 'Jeep' family requires more frequent service than passenger cars because of its daily use in business...and most service jobs come back to the dealer instead of the independent garage.
5. **Lowest-priced 4-wheel drive trucks.** As the lowest-priced 4-wheel drive truck in America, the 'Jeep' Truck has the inside track in the growing trend toward 4-wheel drive trucks in business, industry and agriculture.
6. **Plus profits from special equipment.** You'd sell more than 50 kinds of additional special equipment, with profitable "extras" on many original sales. And, every time the owner has a new job to do, he becomes a prospect for a new piece of equipment.

That is what you can expect selling the 'Jeep' family of 4-wheel drive vehicles!

Did you know that nearly half the sales of Universal 'Jeeps' and other 4-wheel drive vehicles in the 'Jeep' family are made with no trade-ins? This means that full profit is attainable on every sale. And when you take in one of the 'Jeep' family in trade, its high resale value is your assurance of profit on your "wash-out" sale.

What about you?

More than 475 new dealers have signed up recently to sell the Universal 'Jeep' and other 4-wheel drive vehicles in the 'Jeep' family...after getting the facts. To see what these facts can mean to you, contact Dealer Development Department, Willys Motors, Inc., Toledo 1, Ohio.

**WILLYS... world's largest maker of
4-wheel drive vehicles**

Engines Continued from Page 136

the cooling system should be examined carefully because the circulation of an insufficient amount of water in the cooling system can prevent the best set of rings from performing correctly. A cooling system can cause rapid cylinder wear, distortion, piston scuffing and many other things. After an engine that has previously given no trou-

ble will overheat after an overhaul if efficiency of the engine has been restored to normal or if the cooling system efficiency has been lowered. The inside walls of the water jacket are usually coated with rust and scale which dries out and falls off during the time an engine is under an overhaul. Circulation of the water after the engine is assembled

and started will carry the rust and scale particles to the small water passages around the valves and to the radiator tubes where the larger particles will lodge and partially restrict the circulation. Piston rings may be condemned for any overheating condition when the poor water circulation is actually responsible. All deposits of lime and other material in cylinder block, water jackets and the radiator should be removed by using a good reliable reverse flushing apparatus and a good cooling system cleaning compound. In some cases the radiator should be removed and the tanks taken off to be rodded out and thoroughly cleaned.

**FOR YOUR PROTECTION
INSIST ON *SUNNEN*
MEASURED PIN FITS**

Who Paid For This ?



Piston Failures are Expensive . . . In Loss of Profit and Loss of Good Will

Many piston failures have been traced to incorrect Pin Fits which do not allow cam-ground pistons to expand properly, resulting in scored pistons.

Whether you fit your own pins or send the work out, we can help you eliminate practically all comebacks from piston scuffing and scoring.


Our 24-page booklet "Just What Is A Pin Fit" gives the complete story, with many illustrations of actual piston failures and their causes. Endorsed by piston, ring and car manufacturers—200,000 requests already filled—why not drop us a card for your own free copy.

Why not insist on the best . . .

**Specify Sunnen Precision Pin
Fitting Equipment**



SUNNEN PRODUCTS COMPANY
7918 Manchester Ave. • St. Louis 17, Mo.
Consulting Engineers Chemists Scientists



**JUST
WHAT
IS A
PIN FIT?**
An analysis of Pin Fit
and Piston Failures,
their causes and cures

Chrysler Division Gets New PR Head

Appointment of John O. Montgomery as Director of Public Relations of the Chrysler Division on the staff of E. C. Quinn, President of the division, has been announced by Chrysler Corporation.

Montgomery had been News Editor of Chrysler Corporation's headquarters Press Information Service for the past year. He joined the staff in April, 1952, and was named assistant news editor in April, 1953.



SPEEDOMETER service is advertised by Peter LaFata of Reading, Pa., by large 20 inch speedometer mounted on rear of his panel truck. Sign invites customers to follow truck to check their own speedometers.

1ST IN THE "500"

1ST IN PROFITS FOR YOU!

The rugged stamina and dependability of Monroe-Matic Shock Absorbers have been convincingly proved in the Indianapolis "500." For the third straight year, Monroe-Matic-equipped cars have finished first in this gruelling race. And this year, the cars finishing in first, second and third places were Monroe-Matic-equipped.

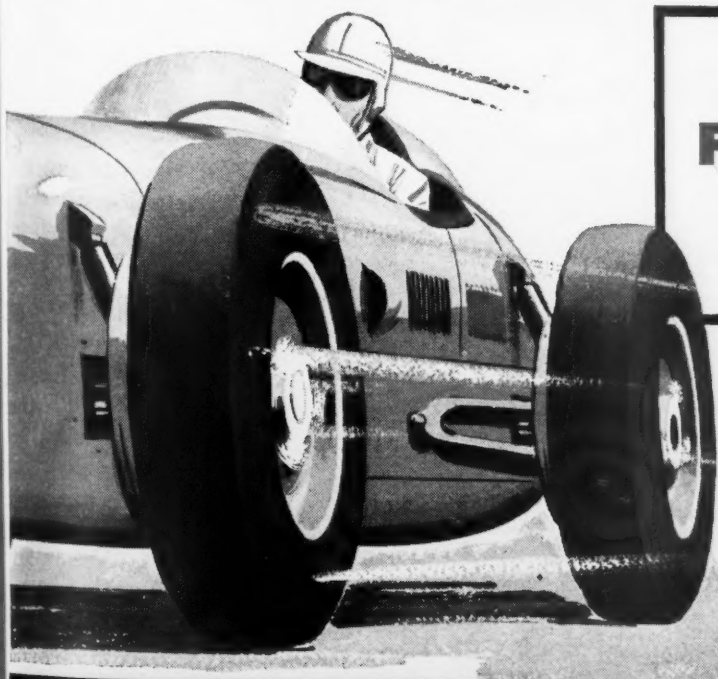
Monro-Matic Shock Absorbers will prove themselves real champions in your shop, too. Their ability to improve the

riding quality of any car will build customer good will for you. The excellent margin of profit — as much as fifteen dollars a set — makes them a real money-making item. And Monroe's sensational 30-Day Free Ride Plan, thoroughly dealer-tested and proved, makes Monro-Matics as easy-selling as they are profitable.

Ask your jobber for full information about the profitable Monroe franchise, or write us.

MONRO-MATIC

SHOCK ABSORBERS



30-DAY FREE RIDE PLAN

Get the facts on the industry's most sensational sales-producing plan. Dealers report sales and profits upped as much as 500% by the Monroe 30-Day Free Ride Plan.



FREE!

You are invited to a FREE showing of "Behind the Scenes at Indianapolis." Ask your jobber for date of showing.

MONROE AUTO EQUIPMENT CO.

MONROE, MICHIGAN

WORLD'S LARGEST MAKER OF RIDE CONTROL PRODUCTS

More car manufacturers specify Monroe Shocks than any other brand.

and work in and out. By this method you can determine the wear at the king pin bushings and also at the upper and lower supports. Then by shaking the wheel sideways it will indicate loose tie rod ends and/or a loose steering worm and sector.

To help diagnose front end troubles, the following trouble

shooting chart will come in handy:

- If car steers or pulls to one side at all times look for incorrect caster angle, bent spindle, pushed back knee, improper tracking, dragging brakes, weak shock absorber on one side, unequal tire pressures, frozen king pin on one side. Weak coil spring or rear spring causing car to sag on one side.

- If car steers normal on smooth roads, but pulls down on crowned roads, look for excessive positive caster on one or both sides and/or weak shock absorbers and coil springs.

- If car wanders and steers erratically, check for incorrect caster, under-inflated tires or odd sizes, bent spindle or excessive looseness in the front suspension parts. If car is equipped with power steering, check the condition of this unit first.

- If tires squeal on turns, check for under-inflated tires, bent steering arm causing toe-out on turns or driver taking turns too fast.

Friend: What's your boy going to be when he graduates?
Father: An old man.

Jaycee Road-E-O Enters Fourth Year

Teen-Age Road-E-O is entering its fourth year as a nation-wide safe driving project for young motorists. Last year through the sponsorship of Junior Chamber of Commerce chapters and other community civic groups, Road-E-Os were conducted for 250,000 teenagers in more than 1,000 communities.

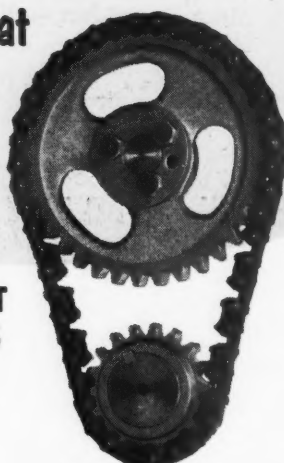
This year the Jaycees brought the Road-E-O to well over 1,500 communities with plans to expand and reach a half-million teenagers. To do this, local and state Road-E-Os were held during March, April, May and were completed in June. The national finals, between winners from 48 states and Hawaii, will be held July 25-29 in Washington, D. C., with the national winners dividing \$3,000 in scholarships.

Teen-Age Road-E-O is designed to create opportunities for teenage drivers to prove and improve their driving and at the same time interest their taxpaying parents in the values of sound high school education courses. Batteries of examinations in driving knowledge and performance skills, each one progressively harder, are given on the community, state and national level.

WHY you should replace timing chain and sprockets at every engine overhaul!



LOOK HOW A SLIGHT TIMING LAG AFFECTS CAR PERFORMANCE



1 FIRE

LAG IN PISTON FIRING: Carbon, overheating, plug fouling, scored cylinders, fuel waste.

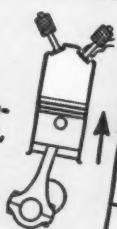


WHEN YOU REPLACE TIMING CHAIN AND SPROCKETS BE SURE TO USE "LINK-BELT" . . . THE WORLD'S FINEST ORIGINAL EQUIPMENT LINE

At every overhaul — while the engine is down — that's the convenient time to replace timing chain and sprockets. You protect your service reputation . . . assure positive valve timing and high engine efficiency. Use Link-Belt, the timing chain having segmental bushings with anti-whip, anti-back-bend features. Carried by leading jobbers.

2 EXHAUST

LAG IN EXHAUST VALVE OPENING: Burning of exhaust valves, loss of compression.



4 COMPRESSION

LAG IN INTAKE CLOSING: Fuel and pressure backfire through carburetor, damage pistons and valves.



3 INTAKE

LAG IN INTAKE OPENING: Low fuel charge, power loss, vacuum that pulls oil past rings.



LINK-BELT
TIMING CHAINS AND SPROCKETS

LINK-BELT COMPANY, 220 South Belmont, Indianapolis 6, Ind. Warehouses in Principal Trading Areas. 12,747

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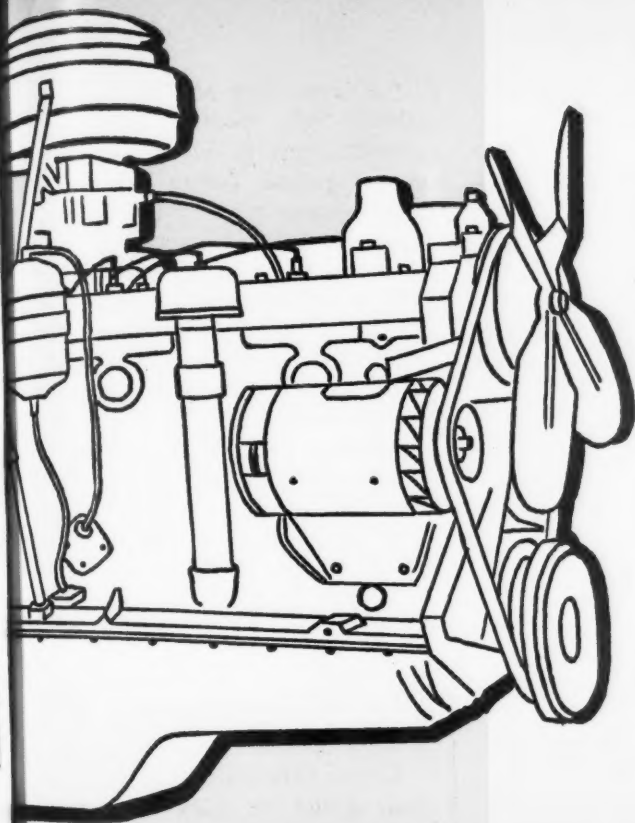
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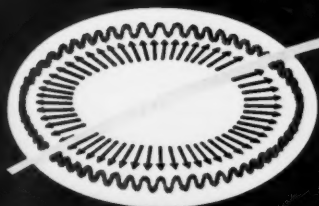
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JULY, 1955



there's life in the OLD ENGINE yet.

**Pedrick Formflex Chrome
Piston Rings can put
the Power Back—at a price
Your Customers will Pay.**



EQUAL PRESSURE EVERYWHERE



MEANS A PERFECT SEAL



**A "NEW ENGINE"
IN EVERY BOX!**

Don't give up hope for an old engine! Now you can do "ring jobs" again—restore satisfactory engine performance with a minimum of labor and parts, thanks to Pedrick Formflex Chrome Ring Sets. The secret is the exclusive Pedrick "Equalizer" that provides soft but positive and uniform pressure *all around the cylinder wall*—not just at a few points. The result is amazing conformability that seals in power and seals out waste under the most adverse conditions. You can guarantee the job to *outperform* and *outlast* in any engine!

So, profit with Pedrick Formflex Chrome Piston Rings! Do more "ring jobs." Restore engine performance, stop oil and gas waste, give your customer satisfaction *at a price he will pay*. Installation is easy and quick. Call your Pedrick jobber today!

DEPEND ON

Pedrick

FOR THE RIGHT RING JOB

At A Price Your Customers Will Pay!

WILKENING MANUFACTURING CO., Philadelphia 42

IN CANADA: Wilkening Manufacturing Co. (Canada), Ltd., Toronto

AMA Reports Needs Of Highway System

Full modernization of the Interstate Highway System over the next 10 years is vital to America's future, in terms of employment, family income and overall economic growth, the automobile industry told Congress recently.

In a statement to the House Public Works Committee, now con-

sidering proposed highway legislation, James J. Nance, president of the Automobile Manufacturers Association, said that traffic demands on the 40,000-mile interstate system will be nearly trebled by 1965.

Nance, who is president of the Studebaker-Packard Corporation, said that an emergency federal road program is needed to catch up with highway deficiencies that have accumulated over the last quarter century.

"A large part of the cost," he added, "can properly be spread over 30 years or so, and paid for out of greater future federal tax revenues generated by the highway improvements."

Highway deficiencies now cost the nation some \$5.3 billion yearly, the statement declared — a waste that exceeds the total currently being spent for all road and street construction.

Nance pointed out that much of the nation's economic growth, and many of the changes in American life, have been linked in one way or another with the rise in motor vehicle travel made possible by the development of our national highway network.

The automotive industry statement made the following four basic proposals to Congress:

1. The Interstate Highway System should be fully modernized over the next 10 years, because it holds the key to future expansion of motor vehicle traffic in the United States.

2. The federal government should assume most of the \$27 billion cost of this interstate highway program, because unless emergency action is taken the system never will catch up with growing traffic demands.

3. Congress should grant some increases in other federal-aid road funds to help the states speed up needed improvements of other routes outside the Interstate System.

4. To the extent that the above program cannot be financed from current tax revenues, Congress should authorize the use of long term credit financing.

By perseverance the snail reached the ARK. C. H. Spurgeon

Transmission School

Pittsburgh, Kansas, was the site of a recent Automatic Transmission School attended by 25 members of KIARA. Sessions were conducted by E. R. "Ernie" Welborn, president of the Kansas Independent Automotive Repairmen Association.

It's a special Fel-Pro formula that makes Felcoid so tough, you can bend it, flex it, fold it, without affecting its sealing power. Because it

SHRINK RESISTANT!

is a homogeneous material, it maintains its shape insuring easy installation. Because this amazing material can be folded to fit into SMALLER

ALWAYS FRESH!

CARTONS, it means easier handling and stocking of entire Fel-Pro Gasket sets... head sets, oil pan sets, full sets and push rod cover sets.

ALWAYS A PERFECT FIT!

... it's a **FEL-PRO** **Felcoid** Oil Pan Gasket!

FELT PRODUCTS MFG. CO., 1521 Carroll Ave., Chicago 7, Ill.

Charg-A-Can[®]



Save Time, Labor and Materials with this Handful of Climate Control



THE CHARG-A-CAN DISPENSER VALVE acts as valve, puncturing device and connector. Allows you to withdraw part or all of contents. Can be re-used for hundreds of charges.

Here's the newest sensational development in automotive air conditioning—CHARG-A-CAN Packaged Refrigerants! You'll save time, labor and materials with the greater convenience of one-pound CHARG-A-CAN disposable containers with "Freon-12".* They eliminate waste, control purity and assure accurate charging of any type car air conditioning system. CHARG-A-CAN refrigerants are expertly analyzed for purity and moisture content before filling under carefully controlled factory conditions. Stock up today with this practical and convenient answer to your car refrigerant needs. Available from Eston wholesalers throughout America.

Safe and Easy to Use—No Special Skills Required!

CHARG-A-CAN refrigerants are safe and easy to use...require no special skill to install in the system. (1) Attach the convenient TAPACAN[®] valve or similar valve-type puncturing device to CHARG-A-CAN. (2) Operate puncturing device to pierce seal on CHARG-A-CAN. (3) Withdraw part or all of CHARG-A-CAN by desired valve operation. (4) When CHARG-A-CAN is empty, remove from valve and discard. CHARG-A-CAN cannot be refilled.



You Benefit 7 Ways

- ① Usable with any type system
- ② Economical—no waste
- ③ Factory control of purity
- ④ Assures accurate amounts
- ⑤ Safe and easy to use
- ⑥ Convenient to stock
- ⑦ Big repeat demand

**Cut Yourself in on Charg-A-Can
AUTOMOTIVE REFRIGERANT PROFITS!**

Stocked by refrigeration wholesalers in all principal cities.

ESTON CHEMICALS DIVISION

American Potash & Chemical Corporation

3100 East 26th Street, Los Angeles 23, California
99 Park Avenue, New York 16, New York



ESTON CHEMICALS DIVISION

American Potash & Chemical Corporation

3100 East 26th Street, Los Angeles 23, California

Name _____

Company _____

Address _____

City _____ State _____

*"FREON" is a Du Pont Trade Mark



OFFICERS and directors of the newly formed Oklahoma City Zone Chevrolet Dealers Association: Standing, left to right, are R. W. White, R. T. Scott, Houston Trice, W. M. Cornelsen, Truman Marshall, Claude Collier, George McRobert (vice president), G. O. Williams, and W. M. Barry, Jr. (treasurer). Sitting, also left to right, are Jim Fleming, Sam Norton III, Wade Watson (president), C. J. McGown, W. R. Teel, Jr., Fay Facker and Otto Resler (manager). E. B. Ward not in picture.

ASI Group Issues New Supplements

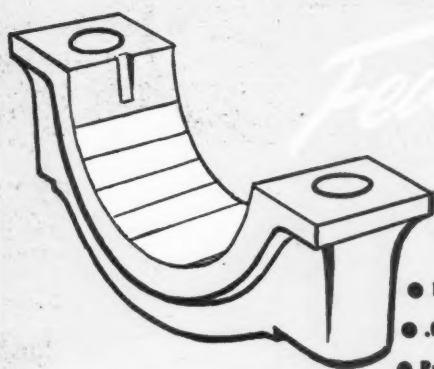
To wholesalers and manufacturers in the Automotive Service Industry, two new visual supplements have been made available by the A.S.I. Committee.

Called "The Marketing Structure of the Automotive Service Industries" and "The Principal Characteristics of Automotive Parts Wholesalers," the supplements are digested from the \$60,000 University of Michigan survey "The Marketing of Automotive Parts."

The two supplements are the first of a series of three treatises to be released as a part of the A.S.I. Committee's continuing study of evolution in the distribution of parts. Copies of the visual supplements are \$2 each and may be obtained from A.S.I. Committee, 111 W. Washington St., Chicago 2, Ill.

Take the "klunk" out of "klunkers"

with Blaisdell



SHIMS

- Laminated, hard-rolled aluminum
- .003 in center; .0005 at both ends
- Precision radial fit; any thickness

Eliminate bearing knock and add sales value to used cars! Adjust bearing clearances the easy, low-cost way with Blaisdell Feathered Shims. Blaisdell Shims are feathered in five laminations of 1/2-thousandth thickness, from .003 in center to .0005 at ends, assuring precision radial fit. Merely remove excess laminations to arrive accurately at desired clearance. Low material cost . . . minimum of labor. Eliminate bearing knock and boost used car prices and profits. Use Blaisdell Feathered Shims, the *original tapered shim*!

Order Blaisdell's Universal Package!

Shim stock for 10 bearings supplied in each universal package of Blaisdell shims . . . enough to adjust a complete set of connecting rod and main bearings. Fit 90% of all cars . . . no need to carry large stock of sizes!



Originators of the Tapered Shim

BLAISDELL MFG. CO. LONG BEACH, CALIFORNIA

BLAISDELL MFG. CO., 1350-A CORONADO AVE., DEPT. A-2
LONG BEACH, CALIF.

NAME _____

FIRM _____

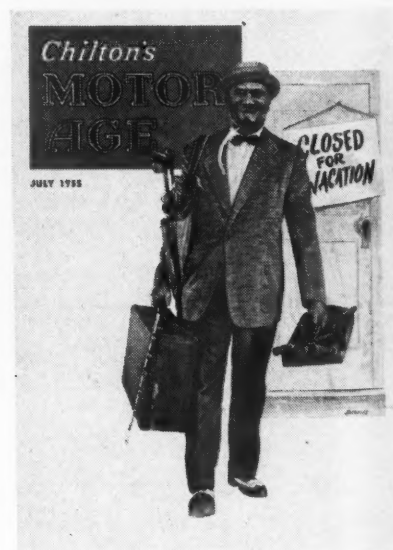
ADDRESS _____

CITY _____

STATE _____

MAIL COUPON FOR FREE SAMPLE SHIMS

Without obligation, send me FREE sample Blaisdell Tapered Shims, and name of nearest jobber.



Win This Original Painting

See Page 40

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1955



"About a 25% increase in sales with Commercial Credit Plan..."

says **MR. PETER GAVRILOFF**, President of Gavriloff Motors, Inc., energetic
Chrysler-Plymouth dealer serving Genesee County from Flint, Michigan.

"I would say that we can attribute about a 25% increase in sales to our use of **COMMERCIAL CREDIT PLAN**. By having quick financing available, we can close sales faster and the entire deal is completed at the same time without any leg work. Our customers like the credit group life

insurance and the ladies think the towing and road service feature is important. We get excellent service from folks at the local **COMMERCIAL CREDIT** office. From our experience I would say that **COMMERCIAL CREDIT** is more liberal with dealers and has better reserves."

COMMERCIAL CREDIT DEALERS ARE *Successful* DEALERS

A letter or call to your nearest **COMMERCIAL CREDIT PLAN** office will get you prompt and expert help with your financing problems. Why not call today?



**COMMERCIAL
CREDIT
CORPORATION**

A service offered through subsidiaries of
Commercial Credit Company, Baltimore . . .
Capital and Surplus over \$175,000,000
. . . offices in principal cities of the United
States and Canada.



TESTIMONIAL DINNER staged by 48 central distributors in Chicago in June honored two veteran executives of the Electric Auto-Lite Co. They were John A. Shank, manager of the firm's Parts and Service Division, and D. H. Kelly, vice president. Both men retired from Auto-Lite recently. One of the highlights of the affair was a creation of Shank's life, with friends and relatives across the nation participating. From left in photo: R. A. Harp, Auto Equipment & Service Co., Phila., chairman of the event; Kelly; James P. Falvey, president of Auto-Lite; Shank; and J. L. Finn, Gardner, Inc., Cincinnati, toastmaster.

Get your share of the **\$268,350,469.00**
BRAKE SERVICE MARKET



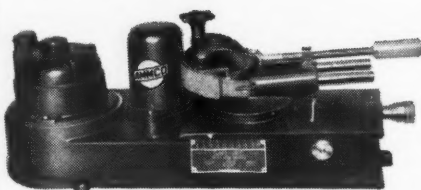
1 out of 3 cars on the road today needs brake service. Ammco Equipment will enable your shop to handle larger brake service volume, make more profit per job, assure customer satisfaction. Continual safety promotion accents need for safe brakes, and makes prospects easier to sell. So the time to equip for peak profits is NOW! See your Ammco jobber for a free demonstration in your own shop.

NO. 3000 SAFE-TURN DRUM LATHE
Provides maximum smooth stock removal through use of exclusive "Infimatic Feed" with .002" to .020" range, adjustable while cutting. Tremendous 2 1/2" Spindle and 3 1/2" Cross Feed Support. Handles drums 6" thru 24" diameter and 7 1/2" deep.



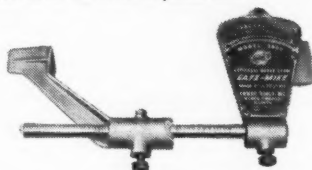
NO. 1750 BRAKE SHOE GAGE

Sets shoes and mikes drums on 1955 Chevrolet front wheels and on Ford and Chrysler products with Lockheed type brake. Transfers drum size directly to shoes.



NO. 2000 SAFE ARC SHOE GRINDER

Grinds 8 shoes in less than 4 minutes, for drums 8" through 17" diameter. Assures 100% contact between lining and drum. Eliminates come-backs or free adjustments.



NO. 3500 BRAKE DRUM MICROMETER

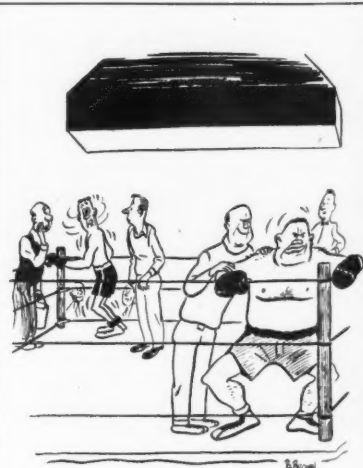
Mikes all drums 8" thru 18" diameter — on or off drum lathe. Tells need for drum turning or replacement.

Service Station Survey Released

The average service station is open 100 hours a week. The most gasoline is sold between 4 and 7 P.M. The average service station owner or lessee says he works 72 hours a week. These are some of the facts uncovered in a national survey by the Petroleum Chemicals Division of the Du Pont Company.

The survey shows that the average American motorist can drop by his service station at any time during a 14 1/2 hour period each day and find it open Monday through Saturday. And he will find it open 13 1/2 hours on Sunday.

Two-thirds of the operators said most of their customers are neighborhood people while 16 per cent said they are mostly transients. The remainder said that neighborhood people and transients make up equal segments of the business.



"Where's the smelling salts? I don't think he'll last until the fight begins!"

AMMCO TOOLS, INC., 2102 Commonwealth Avenue, North Chicago, Illinois



Another contribution from CLEVITE...this useful manual for the bearing service industry

● Here's a book that has been developed to help mechanics, parts managers, foremen and others who buy and install engine bearings. It is one more of a continuing parade of contributions made by the world's foremost designer and builder of original equipment engine bearings.

We've called this valuable book "Mechanics' Engine Bearing Reference Manual". It explains in

more than 100 pages of easy-to-read technical data how to determine and correct the causes of bearing failure and how to properly fit new bearings.

You can get your complimentary copy through your nearby N.A.P.A. jobber . . . your local and dependable source of the famous Monmouth* line of Clevite* 77 and Micro* bearings . . . identical with original bearings installed in most automotive equipment.

*The words Monmouth, Clevite and Micro are registered trade marks of Clevite Corporation.

Monmouth

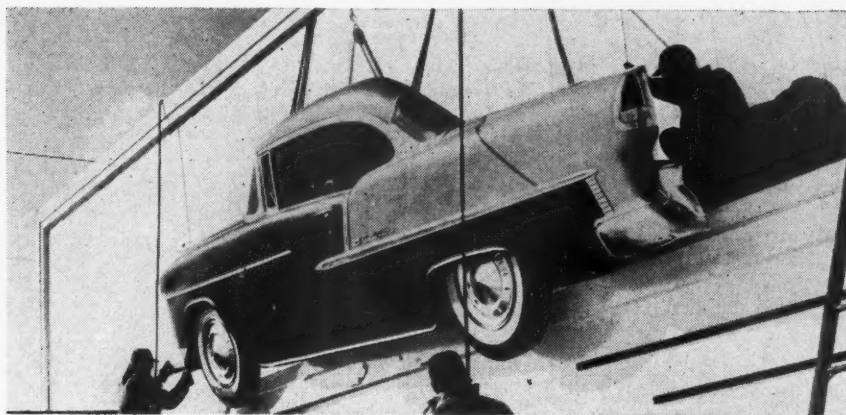
TRADE MARK

ENGINE BEARINGS

Clevite Service
The Cleveland Graphite Bronze Co.
Division of Clevite Corporation, Cleveland, Ohio, U. S. A.



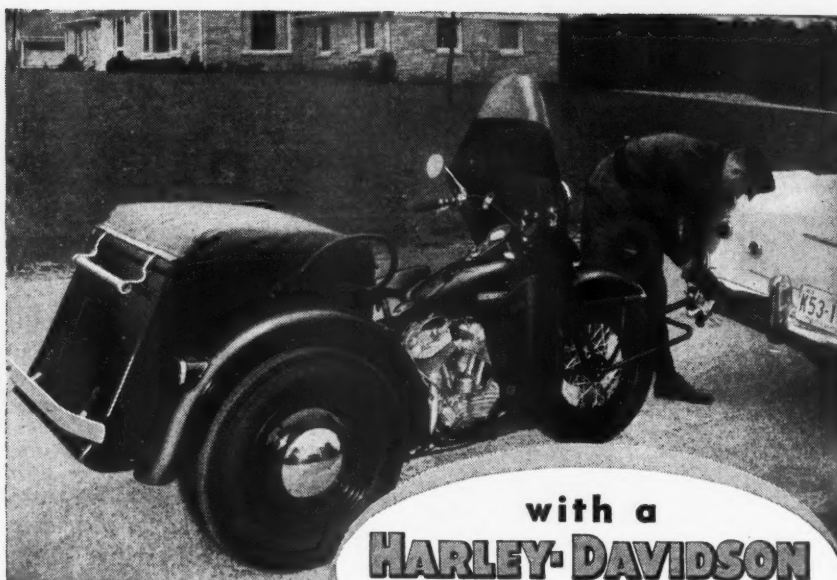
*Your
NAPA Jobber
is a Good Man
to Know!*



GIANT THREE-DIMENSIONAL replica of a 1955 Chevrolet has Detroiters looking intently at the outdoor advertising board at left. The display creates the impression of a real car parked on the sign. Actually the plastic replica—the size of a car-and-a-half in height and length—protrudes only about a foot from the surface of the board. Marshall M. Fredericks, nationally known sculptor, was selected to do the job. He began by shaping a clay mock-up to the 24-by-8-foot dimensions of the replica. After completion of the mock-up, alternate layers of liquid resin and clothlike glass fiber were applied to the clay to obtain a negative "mask" of the sculptor's work. The mask, or pattern, was then removed from the clay and reinforced with wooden framework.



Fast pick-up and delivery service BUILDS CUSTOMER *Good-Will*



with a
**HARLEY-DAVIDSON
SERVI-CAR**

Here's how the SERVI-CAR helps you to bigger profits!

- Keeps business rolling in all year 'round.
- Builds good will with convenient service.
- Gets jobs in and out of the shop quickly.
- Provides continuous advertising wherever it goes.
- Saves time on errands for parts and accessories.
- Keeps costly shop and service equipment busy.
- Gives safe, economical, easy-to-operate service.

From coast to coast, users tell us this three-wheeled "business go-getter" gives their shops a reputation for speedy, on-time service. And, the Servi-Car adds many square miles to their service territories. That means more new customers and more repeat business that keeps costly service and repair equipment profitably busy. Ask your Harley-Davidson dealer for your FREE copy of the booklet: "It Pays to Give Service." And see how you can increase your service profits and build good will with the Servi-Car. Or write: HARLEY-DAVIDSON MOTOR COMPANY, Department MA, Milwaukee 1, Wisconsin.

SERVI-CAR SERVICE SELLS MORE SERVICE

MEWA Appointments

Motor and Equipment Wholesalers Association recently announced the appointment of Robert L. Schutte, formerly sales manager of Ahlberg Bearing Co., Chicago, as Merchandising Counsel for the Association. At the same time, MEWA also stated that Richard A. Mehler, who has served as MEWA's Washington (D. C.) resident representative for the past several years, now takes over the duties as the Association's legislative counsel.

Walker Appointed Ford Styling VP

George W. Walker, nationally-known industrial designer, has been elected vice president and director of styling of Ford Motor Co., Ernest R. Breech, chairman of the board, announced recently.

Styling responsibilities previously held by the company's engineering staff were transferred to L. D. Crusoe, executive vice president, car and truck divisions.

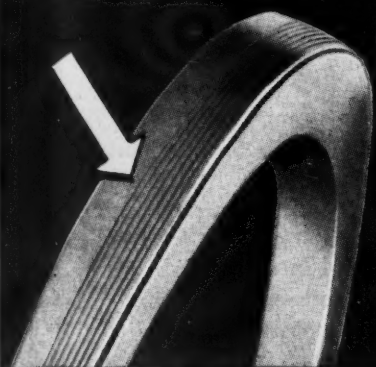
In the newly-established position of vice president and director of styling, Walker will have primary responsibility for the creation of advanced styling designs. In addition to directing the activities of the car line styling studios, he will work in conjunction with the general managers of the vehicle divisions in the development of forward product plans.

Come-backs cost you money...install pre-seated Krome-Oil

AMERICAN HAMMERED

Pre-seated Krome-Oil

PISTON RING SETS



Pre-seated narrow land contact surface of Krome-Oil top groove compression ring

Pre-seating means early break-in, no customer complaints. It is a factory-applied lapping process for the top groove compression ring equivalent to many hundreds of miles of *actual* engine operation. Sell and install chrome, with its long wearing qualities, confidently because Krome-Oil rings are pre-seated. They break-in instantly, deliver premium performance all the way.

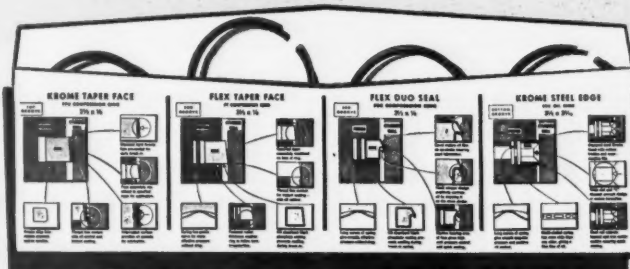


Look for chrome here ...to install a full chrome ring set

When you install chrome, be sure you're selling a full chrome ring set. Check for chrome on the top groove compression ring, on the side rails of the oil ring. Install chrome confidently because Krome-Oil is *pre-seated, seats instantly, doesn't scuff*, and pays off in *longer engine life*.

All-in-one ring envelope

All-in-one ring envelope contains all the rings for one piston. They're packaged in this envelope in the order of installation. This prevents mix-ups, saves yours or mechanic's time. A real help and time-saver in the shop.



Install
Krome-Oil
the chrome ring set
with all the answers

American Hammered

AUTOMOTIVE REPLACEMENT DIVISION

2001 Sanford Street • Muskegon, Michigan

Manufacturers of American Hammered Automotive Replacement Piston Rings.
A Division of Sealed Power Corporation

Remember profit-packed American Hammered Power-Plus Service—
Koetherizing • GI-60 Groove Insert • Dry Film Lubricant

Auto Credit Terms NADA Group Topic

With one exception the status of automobile installment credit was given a stamp of approval recently by representatives of the nation's leading finance companies, bankers, and members of the National Automobile Dealers Association.

In a Washington, D. C., con-

ference called by NADA, the dealers, bankers, and finance men were unanimous in their condemnation of confusing, misleading and false advertising of credit terms. Giving full recognition to the importance of the automotive retailing business to the nation's economy, the group went on record as saying "wild and impossible" offers of credit are bad for the industry and confusing to the public.

Frank H. Yarnall, NADA president, and Frederick J. Bell, NADA executive vice president, who led the conference, said, "Many of the participants referred to the advertising of low and no down payments and long terms as false and misleading. They said that such credit terms are usually not available and were unsound for the purchaser, financier and dealer alike."

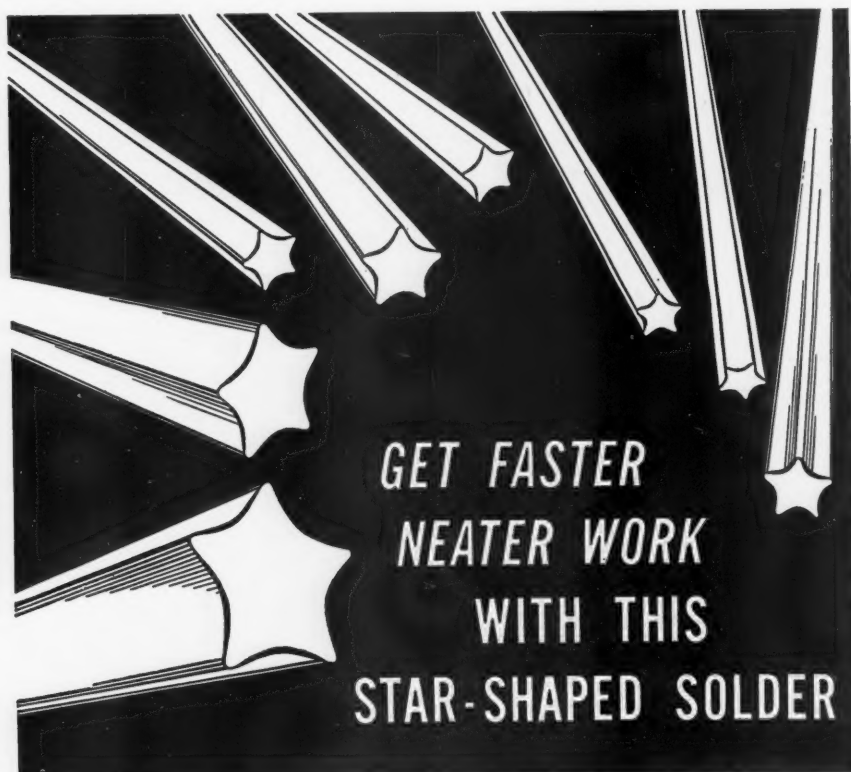
While the group did not recommend specific terms for automobile purchasers, most of those present looked with alarm on any new-car terms that extended beyond 30 months.

Finance company officials, bankers and dealers agreed that automobile installment credit outstanding, when considered in its relationship to personal income, was in a healthy position and not out of line.

Complete confidence in the prosperity of the country was expressed by all of those attending the conference. None saw any signs of weakening.

Repossessions were said to be at a normal rate.

However, the conferees concluded that the false and misleading advertising which was confusing the public had to be stopped. Several members of the group said that when the public knew that low down payments and long terms were not possible and not in the public interest that the advertising of crazy credit terms would lose whatever "pulling power it now has."



Jobs move faster, neater, easier and more economically with STAR Body Solder. Here are four reasons why:

- ★ The star shape exposes the solder to the torch in thin points so melting is easier and quicker.
- ★ The star shape makes it easy to control the flow of molten solder. It does not run off the work; waste is cut.
- ★ The star-shaped bar is easier to grip and handle.
- ★ Star Body Solder stays plastic long enough to be paddled to a mirror-like surface that can be ground to a feather edge.

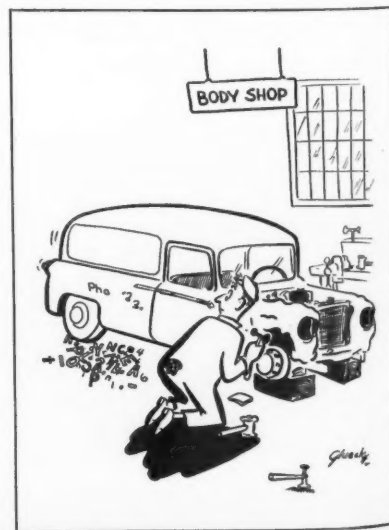
Try STAR Body Solder. You'll find it pays dividends in faster, better work. Available from your local jobber.

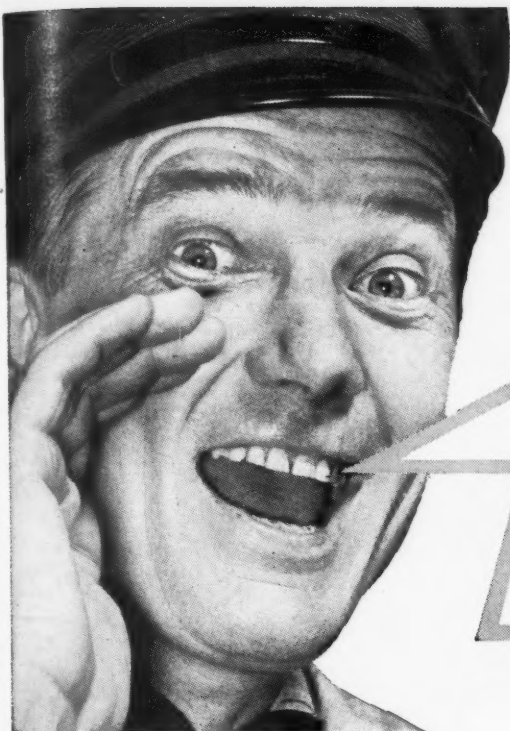
Federated Metals

DIVISION OF AMERICAN SMELTING AND REFINING COMPANY
120 BROADWAY, NEW YORK 5, N. Y.

IN CANADA: FEDERATED METALS CANADA, LTD., TORONTO AND MONTREAL

Aluminum, Anodes, Babbitts, Brass, Bronze, Die Casting Metals, Lead and Lead Products, Magnesium, Solders, Type Metals, Zinc Dust





BLUE SUNOCO *DOES IT AGAIN!*

Delivers more knock-free power for every make of car

• It's new. It's advanced. It's the New Advanced Blue Sunoco, stepped up to a new high in anti-knock power for every make of car...ready now for next year's cars!

Right now, Sun's advertising in newspapers, magazines, and on the air, is telling car owners about New Advanced Blue Sunoco...that it was

made possible by catalytic refining facilities years ahead of the industry!....that it out-performed representative premium-priced brands in laboratory power tests!...that it is high-test, premium quality!...that today, more than ever, Blue Sunoco is America's greatest gasoline value because it still sells at regular gas price.

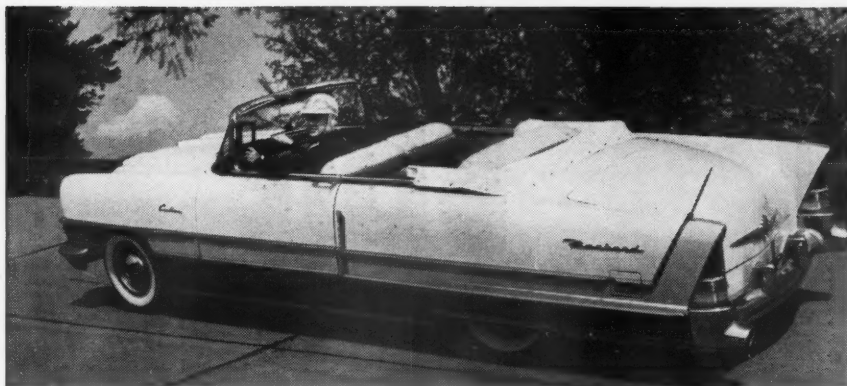
Remember on the average, Sunoco dealers pump twice as much gasoline as competitive dealers. And now—a great new gasoline to pump!

WOULD YOU LIKE TO BECOME A SUNOCO DEALER?

A Sunoco dealership may be available in your community. Call our local office or write us direct. Sun Oil Co., Phila. 3, Pa.

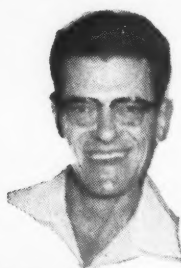


SUN OIL COMPANY, Philadelphia 3, Pa.



PUBLIC INTRODUCTION of the new 1955 model Packard Caribbean occurred recently when the luxury custom-built sports convertible went on display in special "salon" showings at selected market points across the nation. The Caribbean according to Packard officials is the first American-made automobile to offer a blending of sports car styling and flashing performance with standard car comfort. Powered by a high-torque, 275-horsepower Packard V-8 engine, the Caribbean is pictured above on the Packard Proving Grounds with Bill Holland, winner of the 1949 Indianapolis 500 Mile Race, at the wheel. Torsion bar suspension is standard equipment on the Caribbean. The Caribbean's advertised delivered price of \$5,932.32 also includes nearly 100 additional power and comfort features.

"I MADE
\$14,839
LAST YEAR..."



SERVICING RADIATORS!"

—Rex Ryan, Bloomfield, Iowa



INVESTIGATE THE HUGE PROFIT POTENTIAL

Rex did all his own work, operating in a former coal house at his home. With only 4,117 cars and trucks in his county! He says: "Last year, income from labor was \$10,790, material sales were \$4,049. The first 3 months after installing Inland equipment, my business paid two-thirds of the cost!"

TREMENDOUS OPPORTUNITIES! Town Auto Co., Allentown, Pa., made over \$13,000 in 1 year! A Rapid City, So. Dak. shop made \$2,072 in 1 month!

Few automotive services offer such a potential for new and expanded business. Of the 60-million vehicles in the U.S., over 20-million require radiator service yearly. Inland-developed equipment allows you to use highly profitable production methods. And Inland offers the only complete package—equipment, training, merchandising.

FREE TRAINING SCHOOL

Practical factory school trains you or your man quickly. Cleaning, repairing, recoring, pricing, merchandising — everything! Hundreds of graduates now expert radiator repairmen. FREE to Inland customers!

"Training was thorough" says L. J. Messer Co., Lincoln, Nebr. "Excellent training!" says R. E. Barber, Inc., Holland, Mich.

MAIL TODAY!

New free 48-page "Blueprint for Profit" gives you experiences of many of the thousands all over the nation making an EXTRA \$8,000 to \$15,000 a year, details and prices of required equipment, Inland's "Pay-For-Itself" payment plan. Invest a minute to mail the coupon—the rewards can be amazing!



INLAND Mfg. Co., 1108 Jackson St., Dept. MA-7, Omaha 8, Nebr.

World's Largest Manufacturer of Radiator Servicing Equipment
"SOLD EXCLUSIVELY BY MAIL!"

**INLAND MFG. CO., Dept. MA-7
1108 Jackson St., Omaha 8, Nebr.**

Please send new free booklet "Blueprint for Profit"

FIRM _____ PLEASE PRINT

ADDRESS _____

CITY _____ ZONE _____ STATE _____

BY _____ TITLE _____

If Dealer, make of car sold _____

Are you now operating a radiator shop ☐ Yes ☐ No

Auto-Lite Expands Wire, Cable Plants

Expansion of facilities at its wire and cable plants at Port Huron, Mich., and Hazleton, Pa., has been announced by The Electric Auto-Lite Company. Total cost of the projects is expected to be about \$1,200,000.

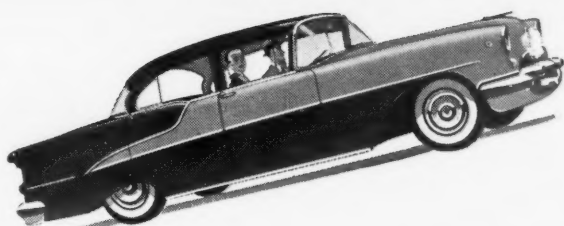
The transition to 12-volt electrical systems by some of Auto-Lite's car manufacturer customers was given as the reason for the need for additional manufacturing facilities, H. E. Hasemeyer, vice president in charge of production, reported.

A 12-volt generator, for example, must have greater lengths of wire of a smaller diameter than its six-volt counterpart, he explained.

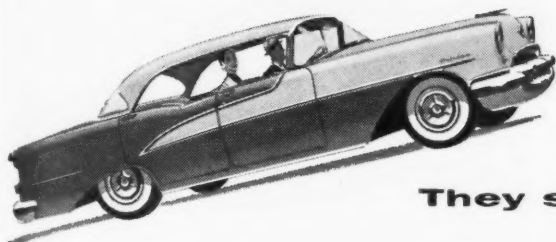
Thibault Purchases West Coast Plant

G. William Thibault, former general manager of the Harley C. Loney Company of Ann Arbor, Michigan, has announced his purchase of the West Coast manufacturing facilities of the Loney Company. Plant and offices are located in Burbank, California.

The new company will be known as the Thibault Manufacturing Company, Inc., and will manufacture and market the "Champion Brand" Wheel Balancing Weights for the 11 Western states with the exception of Colorado.



You see them **EVERYWHERE!**



They stand out **ANYWHERE!**



**They're the most
popular Oldsmobiles
in history ...
and six months of
record sales prove it!**

Oldsmobile dealers now have the best success story in history! Right now, these out-ahead, out-of-the-ordinary new Oldsmobiles are going over as never before! Right now, "Rocket" popularity and "Rocket" demand is at an all-time high! And the reasons are very clear: *Oldsmobile's dramatic styling—Oldsmobile's flashing performance—Oldsmobile's all-around value!* Add to these the aggressive, progressive sales programs of Oldsmobile dealers and you've got a combination that can't be beat! This is why Oldsmobile is setting sales records . . . and this is why every Oldsmobile dealer knows: "It's SMART to be with Olds!"

OLDSMOBILE

DIVISION OF GENERAL MOTORS CORPORATION • LANSING, MICHIGAN

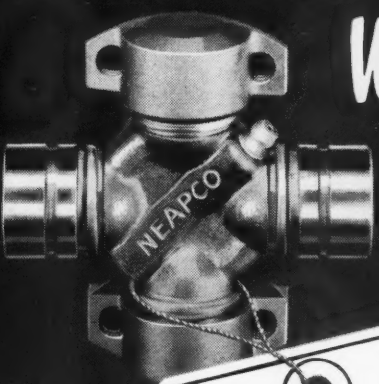
Chilton's MOTOR AGE, JULY, 1955



FIRST OF THE 1955 Hudson Hornets scheduled for use by law enforcement agencies is the all black sedan shown at left. Car was purchased by the Sheriff's Department of Kenosha County, Wisconsin. Officers estimate that each car in the Department travels more than 100,000 miles every year. All Hudson models are produced at the American Motors assembly plant in Kenosha.



FIRST COPY of "The Light That Failed," color cartoon book in which Tung-Sol Electric launches highway safety program by stressing the importance of efficient headlamps, is presented by Miss Safety (Barbara Miller of Philadelphia) to Roscoe S. Smith, vice-president of Tire Trading Co. of Newark. The 16-page cartoon book is being mailed initially to 100,000 garages and service stations in the U. S. and Canada.




What's behind Neapco's price tag?

NEAPCO
NEAPCO PRODUCTS INC., POTTSTOWN, PA.

- ☐ Correct engineering . . . to highest standards.
- ☐ Accurate manufacturing . . . in our own plant.
- ☐ Strategic warehousing . . . at 22 points.
- ☐ Intelligent cataloging and uniform packaging.
- ☐ Competitive pricing.
- ☐ A rock-ribbed GUARANTEE.

You get real **VALUE**

Basic
Manufacturers
Since 1921



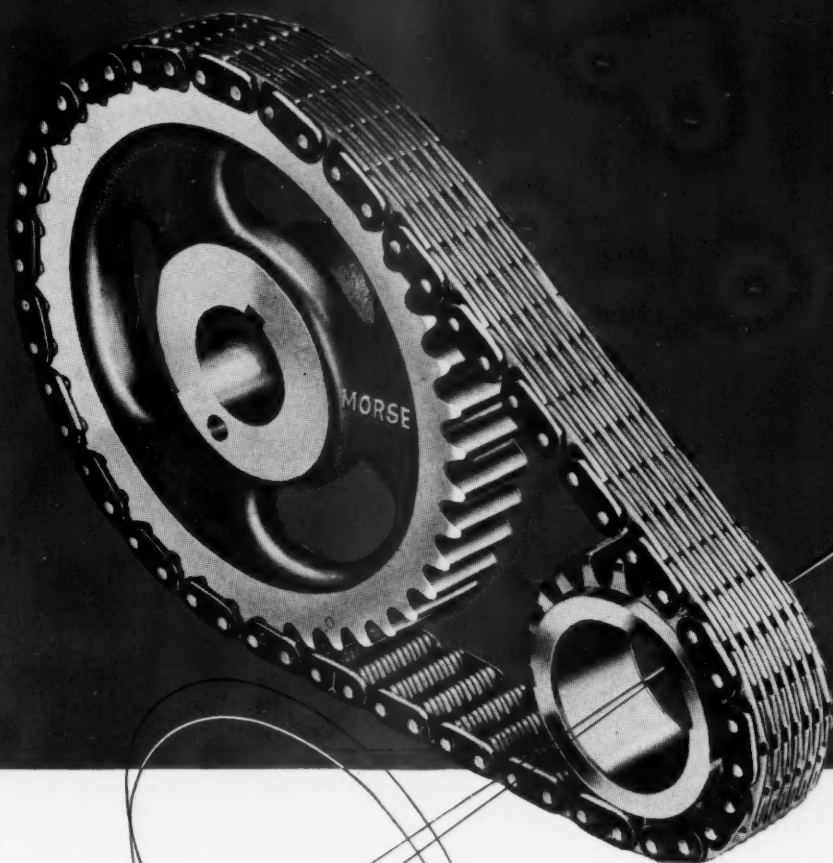
NEAPCO PRODUCTS INC. • POTTSTOWN, PA., U.S.A.

UNIVERSAL JOINTS & PARTS

America's Most Complete Replacement Line



Test pilot Phil Johnston makes a free flight in Palo Alto, Calif., in a new Navy experimental one-man helicopter which looks something like a saucer. A fan inside the ring gives lift to horizontal flight.



timing toes the mark—and so do costs

thanks to Borg-Warner engineering

Ideally, both camshaft and crankshaft should be perfectly parallel for precise timing. But this calls for such close tolerances that machining to the ideal 100% would slow production, and skyrocket costs.

Morse Chain Company, a Borg-Warner unit, solved the problem long ago with Morse Timing Chain Drives. These flexible link-and-pin steel belts compensate for normal shaft end play. Even if shafts aren't 100% true, Morse Chains operate smoothly, safely, quietly—and assure accurate, trouble-free timing. Manufacturing costs toe the mark too. Morse Timing Chain Drives completely eliminate the need for extremely close tolerances, thus speed up mass production machining and assembly.

Over the years, B-W's Morse Chain has supplied the automotive industry with more than 60,000,000 timing chain drives. And today, of the 17 manufacturers using timing chains, 13 specify Morse.

Morse also "Designs it better—makes it better." It's a Borg-Warner family tradition serving the automotive industry every day.

B-W engineering makes it work

B-W production makes it available



Almost every American benefits every day from the 185 products made by

BORG-WARNER

THESE UNITS FORM BORG-WARNER, Executive Offices, 3105. Michigan Ave., Chicago. DIVISIONS: ATKINS SAW • BORG & BECK • CALUMET STEEL • DETROIT GEAR • FRANKLIN STEEL • HYDRALINE PRODUCTS • INGERSOLL CONDITIONED AIR • INGERSOLL KALAMAZOO • INGERSOLL PRODUCTS • INGERSOLL STEEL LONG MANUFACTURING • MARBON CHEMICAL • MARVEL-SCHÉBLER PRODUCTS • MECHANICS UNIVERSAL JOINT • NORGE • PESCO PRODUCTS • ROCKFORD CLUTCH • SPRING DIVISION • WARNER AUTOMOTIVE PARTS • WARNER GEAR • WOOSTER DIVISION. SUBSIDIARIES: BORG-WARNER ACCEPTANCE CORP. • BORG-WARNER INTERNATIONAL • BORG-WARNER, LTD. • BORG-WARNER SERVICE PARTS LONG MFG., LTD. • MORSE CHAIN • MORSE CHAIN OF CANADA, LTD., • REFLECTAL CORP. • WARNER GEAR, LTD. • WAUSAU MFG. CO. • WESTON HYDRAULICS, LTD.



OFFICERS and directors of the Midwest Automotive Service Industries Trade Show recently held a kickoff meeting to discuss plans and promotions for the Midwest Show to be held two years from now in St. Louis (May 9 to 12, 1957). In photo, reading clockwise around the table from the extreme left of the picture, are Willim Hudgins (treasurer), C. W. Corcoran (president), John R. D'Agostino (secretary), Joseph L. Haenny (general manager), E. F. Brase, G. R. Porter, F. A. McHugh, Tom Mills, Earl McAtee, P. L. Robertson, L. C. Dobrunz (vice president), Al Kreutzer and Harry Osiek. Directors not in photo: Earl Blankenship, Art Johnson.

will he blame you?



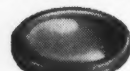
RADIATOR PRESSURE CAP



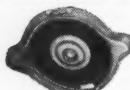
OIL FILLER CAP



LOCKING GAS CAP



STAINLESS GAS CAP



UNDERHOOD RADIATOR CAP

It can happen to your best customer. Give him preventive insurance against irritating delays from broken fan belts, bad hose, thermostat, radiator cap, etc. Be sure that his cooling system is protected against the hot weather vacation driving overloads.

Cooling System Musts

Essential part of cooling system check is replacement with proper *Stant EVRSEAL* Pressure Cap if customer's cap is worn, broken, wrong cap. Engineered in co-operation with automotive engineers for original equipment, Stant Caps perform under all conditions... summer... winter... valleys... mountain... from sea level to the heat of the desert.

recognized standard

31 years of original equipment experience on filler caps for cars, trucks, tractors and direct to radiator manufacturers. The complete line source for a generation! Write today for catalog and complete application chart... naming your jobber.

STANT MANUFACTURING CO., INC.
Connersville, Indiana



*Used on America's Finest Automobiles
as Standard Equipment*

Studebaker-Packard Names Styling VP

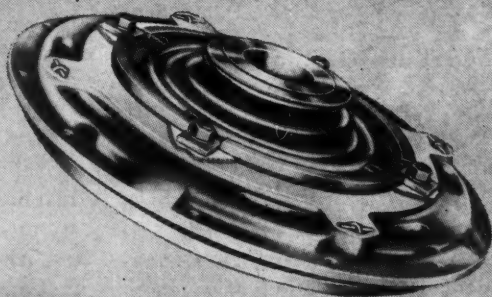
Establishment of a new styling division at Studebaker-Packard Corp. and the appointment of William M. Schmidt as vice president and director of styling, has been announced by James J. Nance, president.

Schmidt comes to Studebaker-Packard from the Ford Motor Co. In his new assignment, he will be responsible for the development and coordination of styling programs related to the production and marketing of multiple lines of cars, reporting to the president.



DEVELOPMENT of a drive-in air conditioner for patrons of movie and eating establishments has been announced by ARA Mfg. Co. of Texas. Model points to air inlet passage.

"Repair" Lipe Clutches at a Higher Profit



install a **FACTORY EXCHANGE UNIT**

Take Less Time

No time spent on clutch disassembly, inspection, parts hunting, assembly, testing. You save high labor costs.

Do More Jobs

Customers are in and out quicker—you can service more trucks in a given time.

Cut Out Comebacks

Factory Exchange Units are made, assembled and tested by the same workmen who build new Lipe clutches. They're *guaranteed* right.

Make More Money

Reduced labor costs . . . ability to handle more jobs . . . customer satisfaction—all add up to a more profitable operation for you!

Lipe's Factory Exchange Program Makes Dollars and Sense!

Plan to use a Lipe Factory Exchange Unit on your next job. Contact your jobber today—or write for name of nearest authorized distributor.



Lipe - ROLLWAY CORPORATION

Manufacturers of Automotive Clutches and Machine Tools
Syracuse 1, N. Y.

What Women Want From Today's Car

What are the selling points with the woman driver when she selects a car?

A panel of representative women drivers recently invaded the Detroit Athletic Club, historic stronghold of Detroit's automotive executives, to supply the answers to Hudson Motors' officials. Hudson

is conducting a national merchandising program for the Hudson Rambler aimed almost exclusively at the women's market.

The panel was composed of a suburban housewife, a social worker, a visiting nurse, a school teacher, a volunteer charity worker, and a fashion model. All have one thing in common: The automobile is a necessity in their busy lives.

In addition to urging Hudson

officials to consider the feathers on a woman's hat when establishing the amount of headroom in a car, the lady drivers revealed that low initial cost, economy of operation, safe construction and dependability were important factors determining the choice of a personal car or a second family car.

They also preferred small cars that park easily and fit into the average garage with ample clearance. Surprisingly, few considered air-conditioning a selling feature, although all agreed it would be pleasant to have. But they voted 100 per cent for power steering, power brakes and automatic transmission, contending strongly that these features should be standard equipment for all cars.

The four-door sedan was preferred 2-to-1 over the two-door model, which received the vote of panel members with small children. The housewife named the station wagon as filling all transportation requirements for suburban living.

The ladies also volunteered more than a few suggestions on how the automobile industry can improve its products from the standpoint of convenience and comfort for the woman driver.

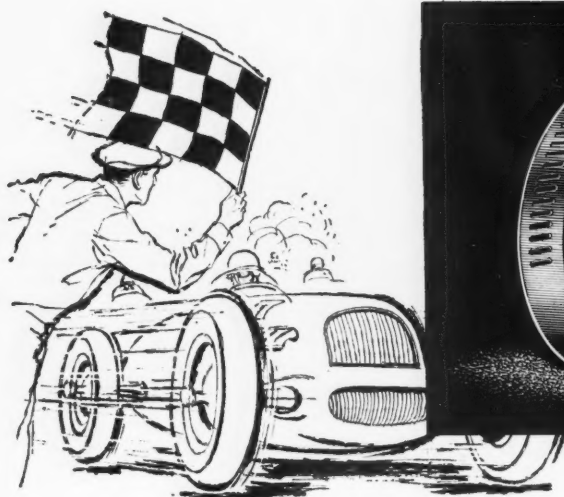
While not advocating a return to running boards, the ladies all wish the manufacturer would devise a folding step that would enable children and older persons to more easily enter the rear passenger compartment. As the charity worker put it: "An elderly person doesn't enter the rear seat of today's cars; they are forcefully pushed in or they manage to fall in."

Mechanics Youthful In Service Business

The U. S. automotive maintenance and service business is a young man's business and it's a good thing it is, because the shortage of trained mechanics has put severe strains on the country's service personnel and facilities, says C. A. Benoit, Jr., 31-year-old president of Permatex Company, Inc.

"The average apprentice car
(Continued on page 160)

At the Indianapolis Speedway **WHERE HOSE CLAMP QUALITY IS CRUCIAL** *Hy-Gear is the Unanimous Choice*



The Speedway "500" — equivalent to 50,000 miles of normal driving — is famous as the supreme testing ground for automotive equipment. On each car there are over 50 critical hose clamp connections that must withstand vibration, pressure and pounding that ordinary quality could not survive. That's why hose clamp quality is crucial at the Speedway. That's why HY-GEAR was chosen by the drivers and mechanics of the 33 starting cars above all other hose clamps.

Hy-Gear
the "Speedway guaranteed" Hose Clamp



WORRIED ABOUT TUBELESS TIRE SERVICING?

**ONLY THE HENDERSON TIRE CHANGER IS
SPECIALLY DESIGNED TO HANDLE TUBELESS TIRES**

**SEE HOW IT ELIMINATES
THESE DANGER POINTS
... EASILY ... QUICKLY!**



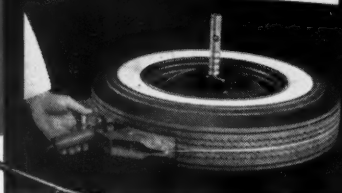
1. Breaking Bead! Only Big 4's Henderson Bead Breaker lies flat on beads ... prevents damage to sealing ribs.



2. Demounting! Only Big 4's Henderson patented Demounting Tool is designed to lift tire beads off rim ... no ripping or turning.



3. Mounting! Only Big 4's Henderson patented Mounting Tool holds tubeless tire bead and lining away from rim ... no chance of tearing tire lining.



4. Expanding Bead! Big 4's Henderson patented Bead Expander assures positive seating of beads ... for easy, quick inflation.

Let's face facts! Tubeless tires are here to stay. Why not change your servicing problems into big, new profits by installing a Big 4 Henderson Tire Changer. Eliminate risk of clumsy hammers and tire irons causing damage to sensitive ribs, beads, and linings. With the Big 4 Henderson Tire Changer even unskilled employees can do the job speedily and safely. You also have this double advantage ... only the Henderson Tire Changer is designed specifically for tubeless tires as well as conventional tires. Equip yourself now to handle this big, new market with the Big 4 Henderson Tire Changer. Priced from \$109, slightly higher on West Coast. If you wish, Big 4's factory trained representatives will school your employees in servicing tubeless tires.

**BUY BIG 4 HENDERSON
AND GO AFTER THE
RICH, NEW MARKET IN
TUBELESS TIRE SERVICING**

**MAIL
COUPON TODAY!**

You can't afford to wait! Ask for money-making details! Latest report from Detroit is that entire automotive industry will start using tubeless tires in 1955!

Don't Be Fooled!
Only Big 4 Henderson Takes The
Risk Out Of Tubeless Tire Servicing!

BIG FOUR

INDUSTRIES, INCORPORATED

Henderson Tire Changer Division
CINCINNATI, 12, OHIO

Overseas Division • 276 West 43rd Street
New York 36, New York

BIG FOUR INDUSTRIES, INC. • HENDERSON TIRE CHANGER DIVISION
Dept. MA Cincinnati 12, Ohio

☐ I am interested in a free, no-obligation demonstration of the Big 4 Tire Changer.

Name _____

Care of _____

Address _____

City _____ State _____

Young Mechanics

Continued from Page 158

service attendant is only about 27 and the average skilled mechanic only about 36," Benoit points out, "and they really need the vigor of youth to handle the constantly increasing volume of service business provided by the nation's growing fleet of more than 58,000,000 publicly and privately owned passenger cars, trucks and buses."

With only about 230,000 apprentices and attendants and only about 770,000 skilled mechanics to handle the maintenance load, a greatly stepped-up program of vocational training is needed, Benoit said, to expand the country's automotive service force on the scale that will be required to handle the estimated 81,000,000 vehicles which will be using our streets and highways by 1965.

Right now, Benoit said, less

than 100,000 students per year are studying automotive maintenance and service courses in high schools and vocational schools. And even those who graduate, he pointed out, will not develop into skilled auto mechanics until after a three- or four-year apprenticeship.

Expansion of vocational training facilities, Benoit emphasized, should take into account not only the need for more trained mechanics, but also for the greater variety of mechanical skills needed to efficiently service such new developments and improvements as automatic transmissions, power steering, power brakes, etc.



Now, Rusco edgebrands all molded segments on the lining's edge, where it stays for life!

Edgebranding ends claims that "all linings are the same". Car owners will know that Rusco brake linings outlast all makes.

The patented construction of Rusco Fused Fabric provides positive identification. This premium quality product gives thousands of miles safe service under all conditions.

Rusco's advertising in the Saturday Evening Post and intensive merchandising program is creating new sales and profits for Rusco dealers everywhere.

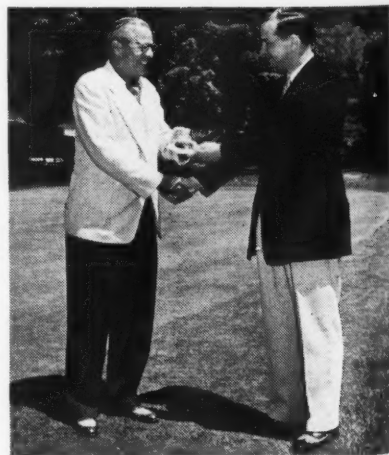


THE RUSSELL MANUFACTURING CO., MIDDLETOWN, CONN., U.S.A.

FMS Institute Holds Elections

At the recent annual meeting of the Friction Materials Standards Institute William J. Nanfeldt (World Bestos Corp.) was elected president; Leo S. Sullivan (Russell Mfg. Co.), vice president; Vincent A. Spina (Scandinavia Belting Co.), treasurer; and Miss Harriet G. Duschek as secretary.

Other members of the board of directors are J. R. Heath (Grizzly Mfg. Div.), F. C. Weyburne (Bendix Aviation Corp.), W. J. Vachout (Carlisle Corp.), F. A. Miller (Raybestos-Manhattan) and H. N. Wilhelm (RiteSet Mfg. Co.).



C. H. LeFevre (right), outgoing president of the Automotive Advertising Council, accepts watch as a testimonial from AAC members as presented by C. C. Tapscott, the chairman of the Council's Industry Wide Program.



Nation-wide Survey of GM Dealers and Customers Shows:

98%

**OF PRESENT OWNERS
WOULD NOT BE WITHOUT**

**IT'S GOT TO HAVE
SAFETY POWER STEERING!**

Safety POWER STEERING

**A sensational repeat sale record
that means repeat profits!**

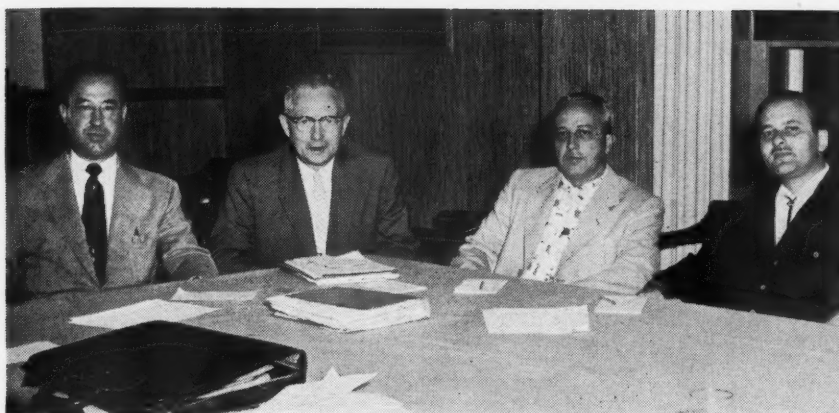
Frankly, *Safety Power Steering* is *habit-forming!* Once a driver gets used to it, he won't get along without it. That's another big reason why *it pays to push S.P.S.*—once you let it sell itself in a thorough road demonstration, it keeps customers coming back for more—*automatically!* That means *automatic extra profits* every time they buy another car from you. That's why the *smartest* dealers and salesmen are pushing *Safety Power Steering—hard!* Saginaw Steering Gear Division, General Motors Corporation, Saginaw, Michigan.

IT PAYS TO PUSH

Safety POWER STEERING by Saginaw

**NOW IT'S PRICED TOO LOW
TO PASS UP!**

Chilton's MOTOR AGE, JULY, 1955



NEW OFFICERS of Automotive Advertisers Council: Left to right, R. K. McConnell (Federal Mogul Corp.), treasurer; S. R. Robinson (Grey-Rock Div., Raybestos-Manhattan), president; Herman Teetor (Perfect Circle Corp.), vice president; and M. Robert Wolfson (Maremont Automotive Products), recording secretary. Not in photo: F. P. Schuhle (General Electric Co.), corresponding secretary. Named executive secretary was George W. Stout (G. W. Stout, Inc.).

Rootes Motors Ups U. S. Dealer Outlets

Rootes Motors Inc., distributors of the British Hillman Minx, Sunbeam, Humber and Rover passenger cars and the Sunbeam Alpine and Arnolt Bristol sports cars, has announced the addition of 53 dealers since the introduction of their 1955 models in February.

This brings the total number of Rootes dealers in the U.S.A. to over 400. In line with Rootes policy of extending its dealer network throughout the United States, additional dealerships are to be announced in a number of new territories shortly, according to John T. Panks, general manager of Rootes Motors Inc.

for profitable wheel balancing

**ON THE CAR . . . OR OFF
CONTINUOUS DUTY . . .
OR OCCASIONAL**

**SPACE APLENTY . . .
OR LIMITED**

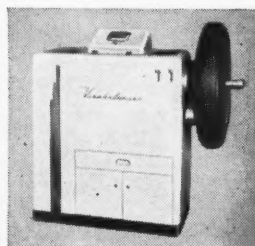
John
BEAN EQUIPMENT

**can meet your exact need at
a price to fit your pocketbook**



John Bean On-The-Car Balancer — Model 88—a complete wheel balancer department in itself, with convenient, easy-to-read controls — accurate, safe and extremely simple to operate — producing more profitable wheel balancing at a minimum investment.

John Bean On-The-Car Balancers are available in three basic models, The Economy, The Deluxe illustrated above, and the Twin Motor Deluxe.



John Bean Visubalancer— Model 300—a beam-of-light static and dynamic balancer for fast, accurate service that eliminates labor wasting cut-and-try methods . . . puts the finger on out-of-balance wheels by showing exactly how and where to correct.



John Bean Balancer — Model 55-J
— combines speed with accuracy in pinpointing both static and dynamic balance . . . cuts way down on labor, resulting in greater shop profit. A rugged, low cost unit that can take continuous use.

**JOHN BEAN DIVISION
FOOD MACHINERY & CHEMICAL CORP.
LANSING 4, MICHIGAN**



WHEEL ALIGNERS • WHEEL BALANCERS • TIRE
DE-SKIDDERS • STEAM CLEANERS • CAR WASHERS •
HEADLIGHT TESTERS • ACCESSORIES and ALLIED TOOLS

JOHN BEAN DIVISION, Lansing 4, Michigan

☐ Please arrange a free demonstration for me.
☐ Please send me information on John Bean Balancers.

Name _____

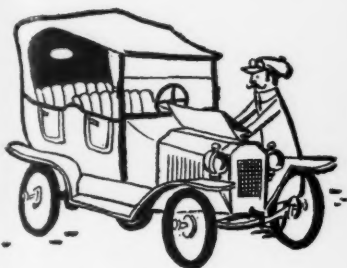
Address _____

City _____ State _____

"When It Comes to Balancing, Use Your Bean"



PASSING THE TEST hands down. Salesman, above, when stopped in his car by police who questioned his sobriety, took off his coat and "walked" a straight line on his hands. That convinced the officers and they let him go.



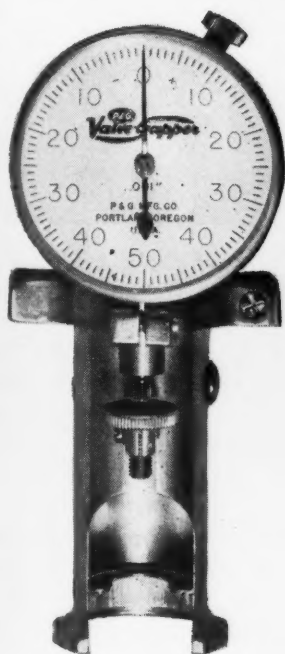
**Still Adjusting
Valve Clearance
the Way Grandpa
Did It?**



DIAL INDICATOR on the P&G VALVE-GAPPER registers the exact valve clearance before, during and after adjustment. Mechanic has both hands free to use tools.

Modern High Compression Engines Demand Precision Valve Adjustment*

...and ONLY the New



There's a P&G VALVE-GAPPER for almost every OHV gas engine. . . . Ask your jobber for the model best suited to your needs.

Models also available for GM-71 and 110 series Diesel engines, Cummins and other Diesel engines.

New Model Ready for '55 Chevrolets, Pontiacs

Model 121 expressly designed for Chevrolet and Pontiac '55 V-8 engines. Also fits all other Chevrolets.

Order from your jobber or write P&G Mfg. Co.

P&G MANUFACTURING CO., Dept. 12-G
305 N. E. Russell Street, Portland 12, Oregon
Please send me Valve-Gapper literature and prices.

Firm Name _____

Your Name _____

Address _____

City _____ Zone _____ State _____

Engines Serviced:

- | | |
|--|---|
| <input type="checkbox"/> Passenger Car Engines | <input type="checkbox"/> Diesel Engines |
| <input type="checkbox"/> Gas Truck Engines | <input type="checkbox"/> Gas Industrial Engines |
| <input type="checkbox"/> Tractor Engines | |

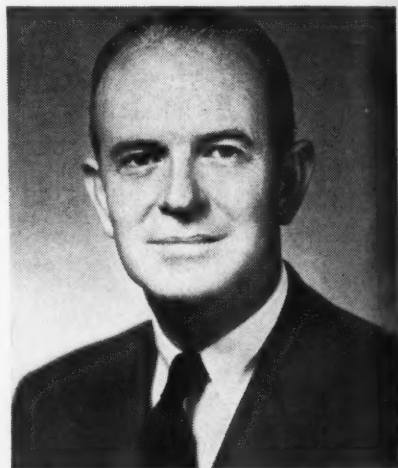
My Jobber is: _____



WHEREVER THEY ARE BEING HELD, National Standard Parts Assn. 1955 regional conferences are being acclaimed by NSPA wholesalers and manufacturers. Four gentlemen participating in a recent New York regional conference were Don H. Teetor, NSPA president; John H. Jones, NSPA regional vice president; J. L. Wiggins, NSPA executive vice president; and M. R. (Bud) Darlington, Jr., managing director, Inter-Industry Highway Safety Committee, Washington, D. C.

Roy Adams Resigns Post at C & L Co.

After more than thirty years of service with Chanslor & Lyon Co., Roy D. Adams (photo), president since 1951, has tendered his resignation to the C & L Board of Directors.



Adams joined the C & L organization at their Oakland, California, branch in 1921. He held various positions in the company over the years which included manager of C & L's Oakland area operations and sales manager in the Southern California area for a period of ten years.

He became vice-president and general sales manager of the organization in 1944 and was elected president in 1951.

Five New Branches

Federal-Mogul Corporation has reported opening of five new branches in the last three months to meet the growing demand for service parts. Another will be opened shortly to bring the total service branches operated by the company to 84.

How to make your service shop more profitable

SPEED OPERATIONS ON JOBS LIKE THESE:



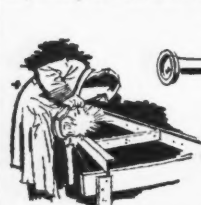
Repairing Bodies and Fenders



Adding Trailer Hitches



Handling Cracked Frames, Wheels and Axles



Altering Car Chassis



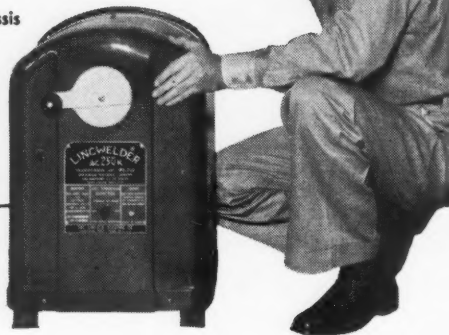
Reinforcing Axle Housings, Truck Frames



Fixing Bumpers

LINCWELDER AC-250-K

Lincoln 250 amp AC welder operates on single-phase power. Easy to install. Moves around shop on wheels.



Here are several typical jobs on which your repairmen can save money using the Lincwelder AC-250-K.

THE REASONS ARE SIMPLE:

Welds are easier to make because of Lincwelder's Arc Booster that makes arc starting simpler.

Welds are made faster because there is no time lost with electrode sticking.

Welds are strong, dependable because Lincwelder's arc is steady, easy to hold in all positions.

The price is low... less than other welders of like capacity, yet has Lincoln's famous rugged, industrial construction and wide range for all types of work.

That's why Lincolns are preferred in garages and body shops everywhere.

Start Cutting Repair Costs Now. See your nearby Lincoln Welder or write for Bulletin 1331 for details.

THE LINCOLN ELECTRIC COMPANY

Dept. 4005 • Cleveland 17, Ohio

The World's Largest Manufacturer of Arc Welding Equipment

it's what's under
the surface that
Really counts!



Super Adflo Reducer is the hidden treasure beneath many a slick surface.

Get in the swim with Super Adflo, the summertime reducer for synthetic enamels. It slows the initial setting-up time, holds enamels open to allow easy lapping in, yet dries out of dust in a few minutes. You can't begin to fathom the depth of color and the rich gloss you'll get with Super Adflo!

Go deeper into the matter with your Arco jobber . . . he's the only one with Super Adflo . . . the reducer made to please painters and customers alike, the reducer that has led the field for three years.



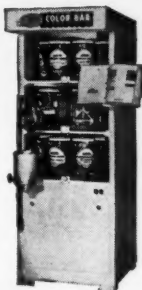
THE ARCO COMPANY

7301 Bessemer Avenue • Cleveland 27, Ohio
3325 South Garfield Ave. • Los Angeles, Calif.

QUALITY ARCO REFINISH PRODUCTS MADE BY THE ORIGINATORS OF COLOR MACHINE MERCHANDISING

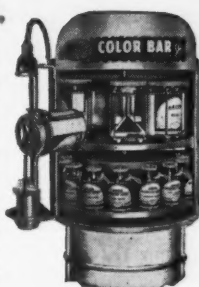
COLOR BAR®

21 gals. of base colors. Designed for high volume refinish business. The "king" of all color machines . . . fits in space the size of household refrigerator, 29 inches square.



COLOR BAR, JR.

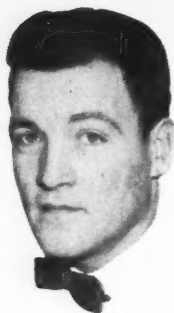
8 gals. and 13 qts. of base colors. Built for the medium sized shop . . . equipped with practically all the features of the famous COLOR BAR.® The latest model in the Arco line, COLOR BAR, JR. offers high volume output. Mounted on drum or bench top.



COLOR CADDY

4 gals. and 17 qts. of base colors. Ideal for the low or medium volume body shop where accurate matching and widest range of colors are essential. Excellent value . . . amazingly low investment with high profit possibilities.





Homer Moon,
Service Manager,
L. O. Gates Chevrolet Corp.,
South Bend, Indiana says:

"Gates Chevrolet ranks among the top 4 Detroit Division Chevrolet dealers in total labor billing, so you can see why we have to use the most up-to-date equipment to keep pace with our production schedule.. That's why you'll find CP Air Impact Wrenches at work in our Transmission, Power-Glide, Heavy Overhaul, Truck, Front End, Body, and Lubrication departments. And our servicemen would be lost without them . . . one mechanic says his CP-740 is worth \$15. a week to him in increased earnings."

"One man increased his pay \$15 a wk. with a CP Air Impact Wrench"

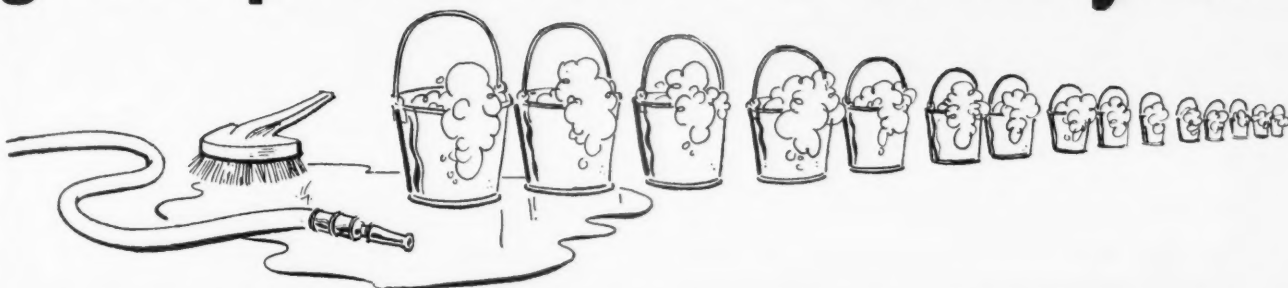
Mr. Moon echoes the praise of Service Managers everywhere who are reaping untold profits by using CP Controllable Power Air Impact Wrenches. The *Controllable Power* feature permits running nuts to correct uniform tightness, yet has plenty of reserve power for hard-to-budge, rusted nuts. Easy-to-handle and lightweight, CP Air Impact Wrenches are furnished with *Attachable Angle Heads* for ratchet wrench spots. They're available in 1/2", 3/4", and 1" square drive capacities. Write, *Chicago Pneumatic Tool Company, 8 East 44th Street, New York 17, N. Y.*



Chicago Pneumatic

AIR AND ELECTRIC IMPACT WRENCHES • PNEU-DRAULIC TRUCK JACKS AND PUMPS • ZIP-GUNS • BEAD BREAKERS

New Motorola car radio installed in 20 minutes gives you more gross profit than 15 wash jobs!



Now you can cash in, too, on the booming car radio business. Motorola's new custom 5M is practically made to order for your sales operation. It'll fit most of the cars that pull into your drive. Anyone in your crew can install it with just three simple hand tools and 20 minutes time. Average gross profit: over a dollar a minute! Want full details? Phone your Motorola distributor—or write us for his name. Motorola Inc., Chicago 51, Illinois • Toronto 4, Canada.

Features: 1-piece universal unit. Volumatic (no fade-out) automatic volume control • 6 tubes including rectifier • 6 x 9 in-dash extended tone speaker • 6 or 12 volt electrical system • tone control.

Motorola

Prices subject to change without notice.

**Controls fit
through dash
opening as
small as**

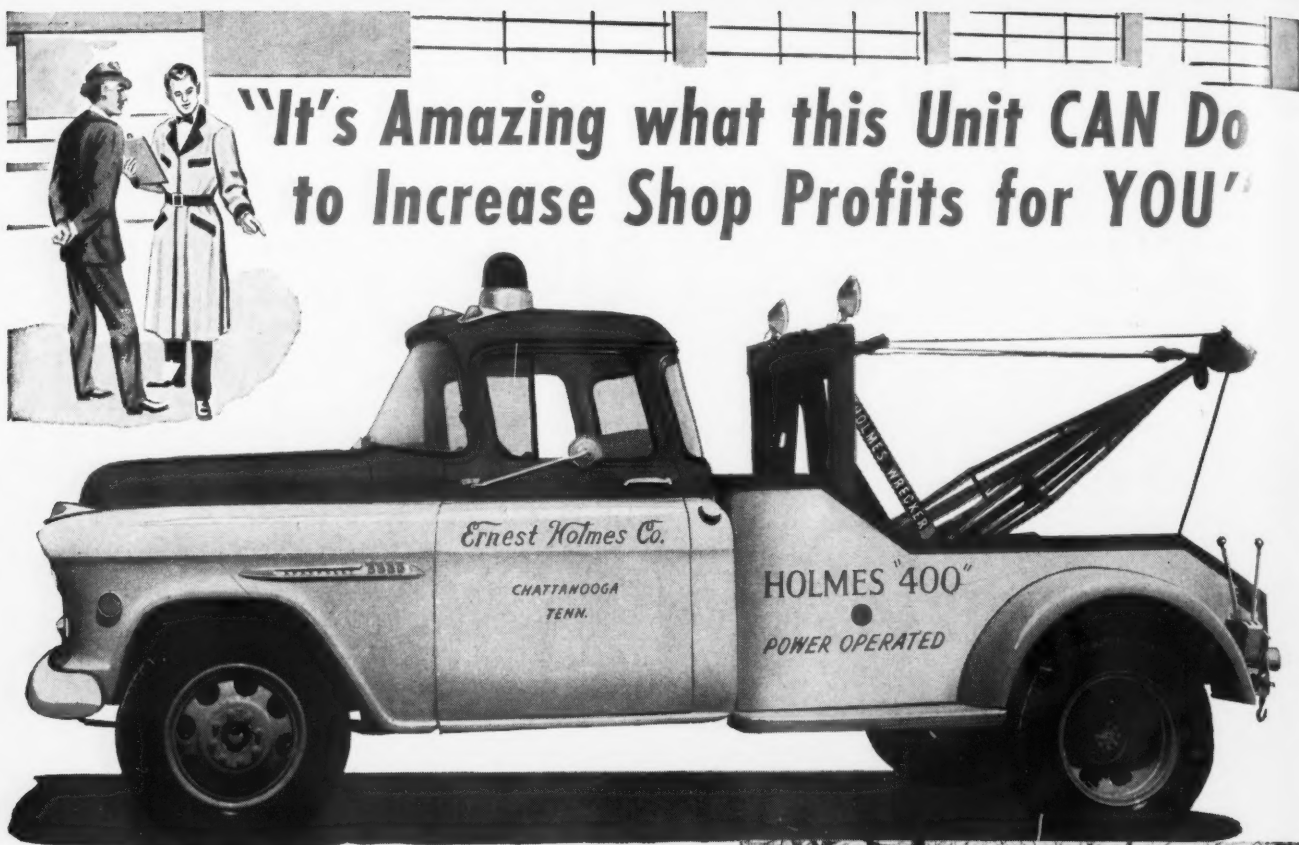
4" x 1¼"

MODEL 5M

\$49⁹⁵

other models
from \$39⁹⁵

 A detailed illustration of the Motorola Model 5M car radio unit. The unit is shown installed in a car dashboard, with its controls (a volume knob and a frequency dial) visible through a cutout in the dashboard. The unit itself is a rectangular metal box with a perforated top and front. A callout box shows the dimensions of the cutout: 4 inches wide and 1¼ inches high. The frequency dial on the unit shows numbers 54, 6, 7, 9, 11, 14, and 16. The brand name 'MOTOROLA' and the model name 'volumatic' are printed on the unit.



HOLMES' all NEW Model 400 WRECKER

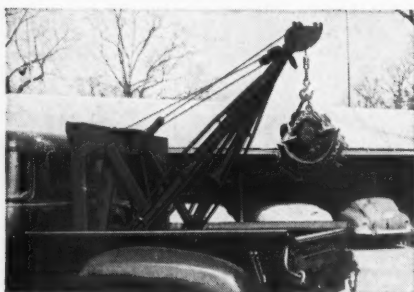
For Light Pick-Up & Towing Service

The Holmes Model 400 is a small, compact unit that can be used efficiently on any light truck of $\frac{3}{4}$ to $1\frac{1}{2}$ -ton capacity. The wrecker has a rated capacity of 3 tons and when mounted on a light truck has dozens of practical uses around any shop or service station. In addition to being versatile, it is fast and economical to operate — easy to handle and especially suited for work in congested areas. The frame is low in height (no higher than cab) to get in and out of low doorways, up winding ramps and other close places. Model 400 has a wide range of operation and can be used profitably either by itself or as an auxiliary to a fleet of larger wreckers. Write today for details.

ERNEST HOLMES COMPANY
Chattanooga, Tennessee



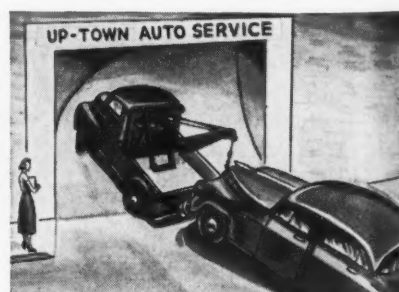
Model 400 has many desirable features not found in a low cost wrecker of this type. It is power operated with worm drive mechanism, has convenient rear-end controls with throttle regulator, double booms (non-swinging), and outboard leg that permits recoveries from either side. Holmes' service body and outboard leg are furnished at extra cost. The wrecker complete with power take-off and drive, rear-end controls and 100 ft. of $\frac{3}{8}$ " cable on service drum, priced at . . . **\$665.**



Ideal for pick-up and delivery service. Lifts motors, large tires, etc., into truck's large cargo space.



FAST, EASY to maneuver in traffic. Entire wrecker unit no longer or higher than average car.



Built low in height with ample clearance for sharp turns into low doorways and up winding ramps.



\$2 a Day Puts This Choldun Auto Laundry in Your Wash Bay!

This Choldun Auto Laundry, CARWASHER and DRYER COMPLETE, can be yours in time for the tremendous washing season, financed through your Authorized Choldun Jobber and the Commercial Credit Plan, for as little as \$2 a day. A golden opportunity to obtain the leading, most advanced carwasher available on a "pay-as-you-earn" basis—with profits to spare.

With a press of a button—the New for '55 Choldun "Auto-Magic" Carwasher allows you to turn out better, faster, more profitable wash jobs with minimum help. It wets, shampoos and rinses automatically with not a single spot uncovered by its blanketing spray. And only the Choldun "Auto-Magic" allows you to wash panel and delivery trucks as a regular part of your wash service—for those extra profits.

Features: New all Aluminum Elevator, push button operation, "no track" installation (leaves your floor and bay completely free), shampoo meter control, self contained motor and pump, operates regardless of water pressure, spectacular Up-and-Down

operation that attracts new customers and "Wax-Washing" with "Purple Magic" Shampoo . . . the sure way to customer satisfaction. Underwriters Laboratories Approved.

To really make your wash bay hum, to eliminate the big drying bottleneck that cuts deeply into your washing profits, Choldun offers the new, inexpensive "Auto-Magic" Car Dryer. Cuts drying time and effort as much as 75%. Now you can turn out sparkling dried cars as fast as specialized auto laundries for hundreds of dollars less than you'd expect to invest in washing equipment. Mail the Coupon Today . . . for details that show how you can make your wash bay a profitable part of your business.

The Choldun "Auto-Magic" Carwasher or "Auto-Magic" Car Dryer can be purchased separately.

CHOLDUN

MFG. CORP., NEW HAVEN, CONN.

CHOLDUN MFG. CORP.
NEW HAVEN, CONN.

MA

Tell me how I can put my wash bay
on a high paying basis.

NAME _____

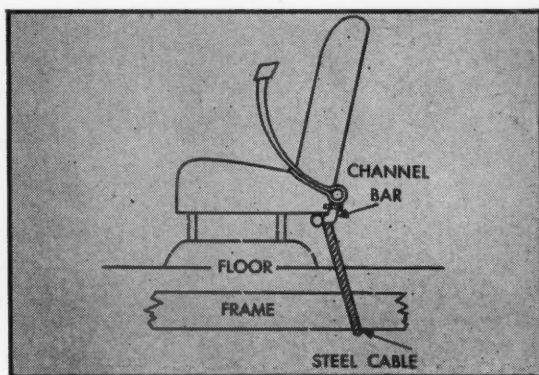
STREET _____

CITY & STATE _____

**The World's Greatest Manufacturer of Belts for Men
Announces the New, Tested, Approved***

HICKOK CAR CRASH SAFETY BELT

The manufacturing skill that has made Hickok the world's largest producer of men's belts and accessories—the merchandising know-how that has made Hickok products best-sellers in more than 10,000 retail outlets—is now being devoted to producing and marketing the finest automobile safety belt ever devised. The Hickok Car Crash Safety Belt will be sold and installed through regular automotive retail channels. Territories are still open and jobber's inquiries are invited. See address below.



***Researched and Tested by Cornell University**
Aeronautical Laboratory, Inc., the Hickok Car Crash Safety Belt cuts automobile death and injury potential up to 66%, reduces driving fatigue up to 33%. It is "THE" safety belt designed by Cornell Laboratories, according to their own rigid specifications. In colors to harmonize with any car interior.

Anchored firmly to frame of car—not to seats, floors or doors, which easily rip loose—the Hickok Safety Belt holds seat and rider in place, withstands loop loads up to 3000 pounds . . . yet installation takes only one-half to three-quarters of an hour! **Suggested retail price, \$29.95 for a two-belt assembly, with a substantial dealer profit.**

SAFETY BELTS ARE IN THE NEWS!

"Don't be surprised if seat belt options are announced by one or more car manufacturers during the next month."
Automotive News

"To protect yourself in today's cars, the Cornell (University) staff recommends a safety belt, warning, however, that not all of the 36 belt models on the market protect the car occupant properly. *The belt must be anchored to the frame of the car . . . and must be able to withstand at least a 3000 pound load per person.*"

This Week Magazine

"Safety Belt Saves Driver in Crash."

Headline from Syracuse Post-Standard

"Resolved: That the American Medical Association recommends to the motor car manufacturer of America that they equip all automobiles with safety belts . . ."

Proceedings of the A.M.A. San Francisco Meeting

7 STAR MERCHANDISING PACKAGE

To help you tap this \$2,000,000,000 market!

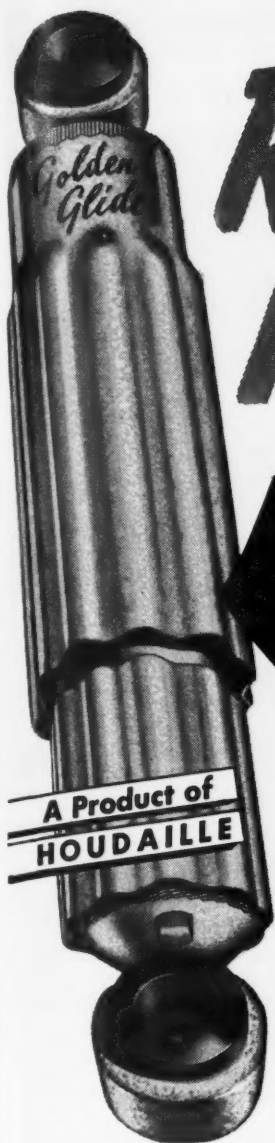
- ★ **1000 LINE NEWSPAPER AD** in cities where distribution is adequately started. Ad to include dealer names.
- ★ **FOLLOW-UP NEWSPAPER ADS** after the 1000 line ad has run. These also to include dealer names.
- ★ **FREE MAT ADS** for use by retailers and jobbers.
- ★ **FREE CONSUMER BROCHURES** for use on retail counters.
- ★ **FREE SHOWROOM DISPLAY** that ties in solidly with the advertising.
- ★ **FREE PUBLICITY RELEASES** for use in local newspapers.
- ★ **FREE ½ HOUR FILM** on safety belt research for showing at PTA meetings, schools, clubs, etc.

JOBBER INQUIRIES INVITED!

Write or Phone: Hickok Automotive Safety Division of the Hickok Mfg. Company, Rochester 1, New York

REGULAR or KING SIZE

Display both
SELL both



A Product of
HOUDAILLE

This colorful counter display carton of regular Golden Glides in "Pair-Unit" boxes is making sales easier for thousands of dealers. A-1401 (12 shocks); A-1402 (10 shocks.)



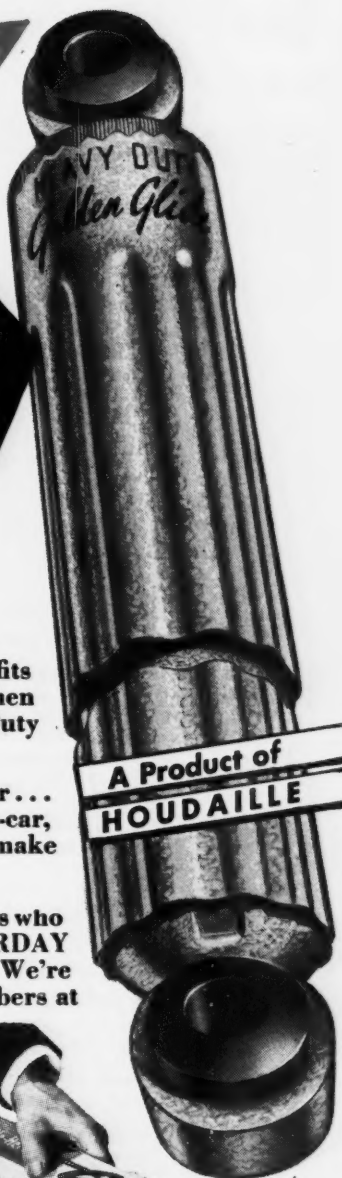
ON THE
PROFIT SIDE it's

It pays off two ways when you stock BOTH sizes. Big profits when you sell regular Golden Glides; **BIGGER** profits when your customer needs the larger, longer-lasting Heavy-Duty Golden Glides.

With BOTH on display, you can sell *every* customer... whether he is a smooth-road "city" driver, or a heavy-car, tough service, rough road or big mileage man. You'll make friends *and* profits either way!

YOUR customers are among the 50 million readers who see Houdaille Golden Glide advertising in the SATURDAY EVENING POST, LIFE and FARM JOURNAL. We're telling them to have *you* check their shock absorbers at 10,000 miles and, if they need replacement, to ask for Golden Glides. Be ready for them with BOTH sizes on hand. Phone your Jobber, or write or wire collect: Houdaille-Hershey Corporation, Buffalo 11, New York.

Heavy Duty Golden Glides come in "Pair-Unit" boxes, too. Lets you stock and sell in pairs or singles and eliminates duplicate inventory.



A Product of
HOUDAILLE

DOUBLE-ACTION
Golden Glide
CUSTOM-BUILT SHOCK ABSORBERS

QUIZ!

WHICH **AGS**®

SPECIALIZED LUBRICANTS DO YOU USE?

Chances are you're already using one or more dependable AGS lubricants — and know how they improve any lube job . . . and give your work that extra touch of quality. So why stop short—with just one or two items? Use the full AGS line to really round-out your service . . . and increase your resale profits!



RUGLYDE® Rubber Lubricant & RuGLYDE Service Kit

Industry recommended for lubricating of all rubber parts and fittings—clean and dress-up rubber—faster, safer Tubeless Tire servicing.



LOCK-EASE® Graphited Lock Fluid

Protects all locks against freezing, sticking, rust and wear. Penetrates quickly, seals out moisture and dust from working parts. Use on every lube job—sell it, too!



DOOR-EASE® Stick Lubricant

A clean lubricant for ear door, trunk and hood fitting and other exposed parts . . . stops squeaks and binding. Excellent for home use, too. Will not stain.



DOOR-EASE® Dripless Oil

Runs in . . . won't run out! Long-wearing . . . weather and rust-proof film for hard-to-get-at places. Dozens of resale uses.



See your supplier or write

AMERICAN GREASE STICK CO.
MUSKEGON, MICHIGAN

O'Madigan Issues Used Car Forecast

Based on all-time-high used car sales in the first four months of this year, up 23 per cent over the same 1954 period, Dan O'Madigan, Jr., Packard general sales manager, forecast recently that nearly 11,000,000 families will purchase used cars in 1955.

The average used-car purchaser's expenditure, he said, will be between \$800 and \$1,200.

O'Madigan (photo) made his forecasts in setting forth recommendations for families on how to buy a used car.



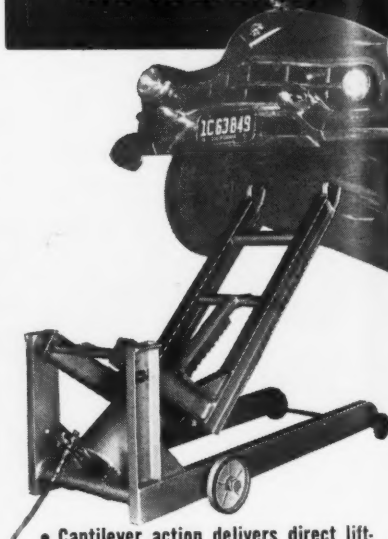
"Families should look for the same things in a used car that a dealer does when appraising a trade-in. A dealer knows that a new coat of paint and smooth seat covers may blind him to serious and expensive mechanical flaws."

A family's first step should be to seek out a reputable dealer, either a new car dealer with a used car lot and efficient conditioning facilities or a used car dealer who has been in business for a long time and operates from a well-kept, well-located lot, O'Madigan said.

CAS Rapid Growth

Certified Automotive Service, Inc., reports that a recent check indicates there are now close to 400 cities and towns operating the CAS Budget Plan. Approximately 2,000 jobbers and 35,000 dealers are using the Plan to sell repairs, parts and accessories in some 42 states, the District of Columbia, and parts of Canada and Hawaii.

LEE... the one END LIFT with ALL the features!



- Cantilever action delivers direct lifting power
- Double orifice valve eliminates surging
- Large Neoprene tires, roller bearing wheels for easier handling
- Pat. safety latch for positive locking
- Stores on end in minimum space

Save as much as 70% in job time; increase mechanic's efficiency to 50% with LEE, the original and best End Lift.

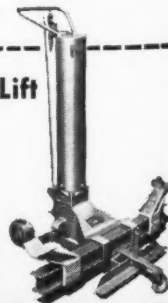
LEE Bead Breaker



Breaks both beads in one operation, with wheel on car, ground or tire changer. Air power does the work.

LEE Bumper Lift

Turns on a dime . . . lifts all U. S. cars . . . one hand control . . . Operates on 10 roller bearings for smooth up and down action with no binding or surging.



Write for Bulletin 201



**AUTOMOTIVE
EQUIPMENT
MFG. CO.**

11000 SO. ALAMEDA STREET
LYNWOOD, CALIFORNIA

Chilton's MOTOR AGE, JULY, 1955



Sell The Pioneer Anti-Freeze!

You'll discover a new profit frontier with these great anti-freezes, U. S. I. Permanent and Super Pyro®! Their history goes back to 1906 and the first packaged anti-freeze — PYRO! And now for *new* sales history—these brands have the powerful backing of the OLIN MATHIESON CHEMICAL CORPORATION. That means:

You'll get top quality products! U. S. I. Permanent for one-fill, winter-long protection and Super Pyro for the safe, economical methanol anti-freeze. Both top quality from formula to can!

You get service! Safe, dependable packaging; fast, fool-proof order-taking; coast-to-coast warehouse facilities and quick, on-time deliveries!

You get the most complete anti-freeze advertising program you ever saw! Nothing is left undone! Television . . . radio . . . national magazine ads . . . billboards . . . window streamers . . . window banners and spots . . . leaflets . . . capacity charts...a terrific direct mail campaign...the chance to send for big drill cloth banners (3 feet x 10 feet). ALL this is yours with Olin Mathieson Anti-Freeze.

So join the team that has everything—experience, top quality products, dependable service and the *power* to back you up in sales and profits! Better call your jobber today and order your stock of U. S. I. Permanent and Super Pyro *early!*

OLIN MATHIESON CHEMICAL CORPORATION
Automotive Products Department, Baltimore 3, Md.

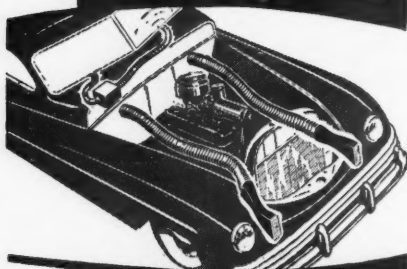
You can **SELL MORE**

WIREMOLD Air Duct and Defroster Hose for replacements

because

WIREMOLD is original equipment on America's leading automobiles!

This rugged, sturdy duct is best for replacements — and it's a good profit maker for you, too. You'll like working with it — you can bend it double without kinks, and you'll always get a tight, snug fit!



- Fits every make and model
- Easily bends 90° - 180°
- Easiest to cut & handle
- Resists cold-heat-oil-water
- Saves 50% storage space — 6' lengths retract to 3' in package

Write for full information.



This Display will **SELL**
AIR DUCT for you!

Order this WIREMOLD AIR DUCT & DEFROSTER HOSE DISPLAY PACKAGE today! Contains one 6-foot length of each of the 6 most popular sizes. Attractive 2-color Display is **FREE!**

The **WIREMOLD** Company
HARTFORD 10, CONNECTICUT

Calendar of Coming Events

Dealers Conventions

- Aug. 21-23—22nd Annual Convention, Automobile Dealers Assn. of West Virginia, Greenbrier Hotel, White Sulphur Springs, West Virginia.
- Aug. 28-30—Kentucky Automobile Dealers Assn., Kenlake Hotel, Hardin, Ky.
- Sept. 9-11—Maine Automobile Dealers Association, Samoset Hotel, Rockland, Maine.
- Sept. 16—Nebraska New Car Dealers Association, Paxton Hotel, Omaha.
- Sept. 16—24th Annual State Convention, Kansas Motor Car Dealers Assn., Broadview Hotel, Wichita, Kansas.
- Sept. 16-17—New Mexico Automotive Dealers Assn., Nickson Hotel, Roswell, N. M.
- Sept. 18-19—South Dakota Automobile Dealers Assn., Sioux Falls, S.D.
- Sept. 18-20—32nd Annual Convention, New York State Automobile Dealers, Inc., Saranac Inn, Saranac, N. Y.
- Sept. 19—Minnesota Automobile Dealers Association, Radisson Hotel, Minneapolis.
- Sept. 19-20—Illinois Automotive Trade Assn., Pere Marquette Hotel, Peoria, Ill.
- Sept. 19-20—Wisconsin Automotive Trades Assn., Schroeder Hotel, Milwaukee, Wisc.
- Sept. 25-27—Texas Automotive Dealers Assn., Shamrock Hotel, Houston, Texas.
- Sept. 25-27—Tennessee Automotive Assn., Buena Vista Hotel, Biloxi, Miss.
- Sept. 26-27—Pennsylvania Automotive Assn., William Penn Hotel, Pittsburgh, Pa.
- Sept. 26-27—Automobile Dirs. Assn. of North Dakota, Fargo, North Dakota.
- Sept. 28-30—37th Annual Convention, New Jersey Automotive Trade Assn., Hotel Chalfonte-Haddon Hall, Atlantic City, N. J.
- Oct. 9-10—Georgia Automobile Dealers Assn., Bon Air Hotel, Augusta, Ga.
- Oct. 9-10—New Hampshire Automobile Dealers, Mt. Washington Hotel, Bretton Woods, New Hampshire.
- Oct. 9-11—Mississippi Automobile Dealers Assn., Buena Vista Hotel, Biloxi, Miss.
- Oct. 15-17—Arkansas Automobile Dealers Assn., Majestic Hotel, Hot Springs, Ark.
- Oct. 16-17—Oklahoma Automobile Dealers Assn., Mayo Hotel, Tulsa, Oklahoma.
- Oct. 16-18—National Used Car Dealers Association, Hotel William Penn, Pittsburgh, Pa.
- Oct. 23-25—Florida Automobile Dealers Assn., San Souci Hotel, Miami Beach, Florida.
- Nov. 1—Connecticut Automotive Trades Assn., 34th Annual Convention, Hotel Statler, Hartford, Conn.
- Nov. 6-8—Automotive Trade Assn. of Virginia, Roanoke Hotel, Roanoke, Virginia.
- Nov. 13-14—Ohio Automobile Dealers Assn., Netherland Plaza, Cincinnati, Ohio.

- Nov. 13-15—20th Annual Convention, Auto Dealers Assn. of Alabama, Tutwiler Hotel, Birmingham, Ala.
- Dec. 7—Utah Automobile Dealers Association Convention, Newhouse Hotel, Salt Lake City, Utah.
- Jan. 28-Feb. 1, 1956—39th Annual National Automobile Dealers Assn., Washington, D. C.

Automobile Shows

- Jan. 7-15, 1956—Chicago Auto Show, International Amphitheatre, Chicago, Ill.
- Jan. 7-15—St. Louis Auto Show, Kiel Auditorium, St. Louis, Mo.
- Jan. 21-29—Cleveland Auto Show, Cleveland, Ohio

General

- Sept. 6-17—Machine Tool Show, National Machine Tool Builders Assn., International Amphitheatre, Chicago, Ill.
- Sept. 21-22—Federation of Automobile Dealers Association of Canada, (Continued on page 176)

Classified Advertisements

MANUFACTURERS AGENT OPPORTUNITY: PRESSURE SENSITIVE INDUSTRIAL TAPE LINE. EXCLUSIVE TERRITORIES OPEN. LIST CURRENT TERRITORY, LINES CARRIED AND BIOGRAPHY. WRITE BOX 27, IN CARE OF MOTOR AGE.

MANUFACTURER'S AGENT WANTED: Manufacturer of auto car washers and household brushes and related items is seeking an agent for a protected territory to contact the automotive trade. Large volume potential. Write to Box 28, Motor Age, 5601 Chestnut St., Philadelphia 39, Penna.

SLOO Penetrant

LOOSENS STUBBORN TAILPIPS & BRACKETS!!

FREES FROZEN BOLTS!!

and 1000 other uses!
It's concentrated!
It dissolves rust!
Has no unpleasant odor!

The Mechanic's Silent Partner!
Money-back guarantee!

PETROLEUM SOLVENTS CORPORATION, N. Y. 17, N. Y.
In Canada: Montreal, Que.

FREE Wholesale CATALOG

Save Money on

AUTO AIR CONDITIONING

Complete Auto Air-Conditioning units, and parts, for old and new cars. Get complete, illustrated, wholesale catalog! Write on your letterhead to.....

The HARRY ALTER CO., Inc.
1728 S. Michigan Ave., Chicago 16, Ill.
134 Lafayette St., New York 13, N. Y.
122 Parkhouse St., Dallas 7, Texas

48,000 shops, garages, dealers use and depend on

NATIONAL
Automobile
PARTS & LI
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PACKARD

Comp. No.	Part's Year and Series	Labor Part Your Price	Opp. No.	Part's Year and Series	Labor Part Your Price
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A-1
FRONT BUMPER

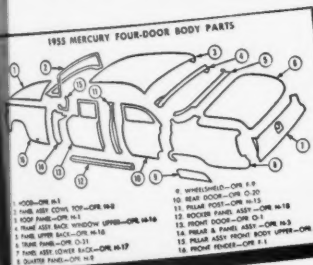
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TYPE LAYOUT ON
4 1/2" x 6 3/8" PAGE**

PARTS LIST PRICE

Covers all cars, arranged alphabetically, in all models back through 1949, including hard-tops and convertibles. All listings reflect latest factory releases.

**Book of Illustrations 89 Assembly
Diagrams \$3.00**

**NATIONAL MARKET REPORTS, INC.**

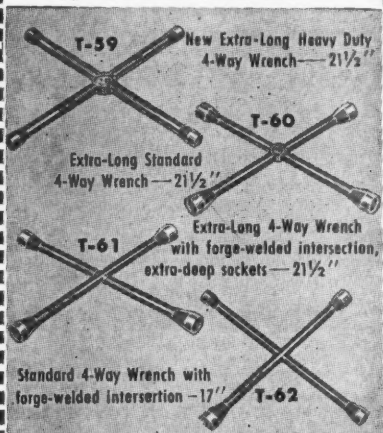
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**GUARANTEED FOR LIFE
AGAINST BREAKAGE!**

**Quality Passenger
Rim Wrenches by**

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Preferred by tire repair men everywhere for their proven superiority and long life. Insist on these stronger, tougher, longer-lasting wrenches—hot-forged from chrome nickel alloy steel, with two 3/4" sockets for double life!

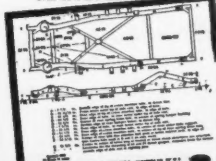


SEE YOUR JOBBER on the complete line of *Job-Designed* Ken-Tools. Forged by the largest exclusive manufacturer of top-quality Tire-changing Tools and Equipment. THE KEN-TOOL MFG. CO., AKRON 5, OHIO.



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Always Better

BOWERS BATTERY & SPARK PLUG CO., READING, PA.

Calendar . . .

Continued from Page 174

Sheraton-Cadillac Hotel, Detroit, Mich.
Sept. 22-24—Automotive Parts Rebuilders Assn. Convention, Fort Shelby Hotel, Detroit, Mich.
Sept. 29-30 — National Automobile Transporters Assn. Convention, Sheraton-Cadillac Hotel, Detroit, Mich.
Oct. 28—Automobile Old Timers, 16th Anniversary Dinner, Waldorf-Astoria Hotel, New York City.
Nov. 6-7—Texas Independent Automobile Dealers Assn., Inc., 11th Annual Convention, Shamrock Hotel, Houston, Texas.

DeLorenzo, Youel In New PR Posts

Paul Garrett, vice president in charge of the General Motors public relations staff, has announced the appointment of Anthony De Lorenzo as director of press and radio relations for General Motors.

He succeeds Kenneth Youel, who has been appointed to the new position of director of divisional relations in the Department of Public Relations. Youel will coordinate the public relations work of the corporation and various GM divisions.

De Lorenzo has been with the Department of Public Relations since February 1, 1949, as executive in charge of press and radio relations in Detroit. In his new position he will supervise GM press activities throughout the country.



DISPLAY card for their new auto tank accessory designed to prevent spillage is looked over by Scully Signal Co. president F. P. Scully and his son Robert (left) latest family member to join this Massachusetts firm.

When Drain Plug
Threads are
Stripped—use



CHAMP-ITEMS

**No. 949 SELF-THREADING
OVERSIZE DRAIN PLUGS**

ORDER FROM YOUR JOBBER
CHAMP-ITEMS, INC., ST. LOUIS 14, MO.

Lasco
MOUNTAIN MASTER
BRAKE LINING
America's Finest!

From Hollywood to Manhattan—Demanded by Fine Car, Bus and Heavy Transportation Owners. Get the BEST for a Few Cents More. Cut Costs—Prevent Accidents—Save Lives! Dealer inquiries are invited. Write or wire. LASCO BRAKE PRODUCTS CORP. MEMPHIS 3, TENN. OAKLAND 7, CALIF.

**NEW AUTO-MAGIC
TRANS-ORBITAL ELECTRIC
POLISHER . . .**

. . . works like the human hand. 200 times as fast; polishes car in hour or less. Leaves no swirl marks, can not burn or mar finish. Produces beautiful lustre. Inexperienced help can use it. A real money-maker for you. Write for descriptive folder.

**DOUGLAS SCOTT
DEVELOPMENT CORP.** Dept. "A"
3931 West 150th St. Cleveland 11, Ohio

**FREE FOREIGN CAR
PARTS
CATALOG**

Pistons
Valves
Brakes
Clutches
Tools
Tires
Lamps for
all makes

Prompt delivery on all
parts anywhere in the
U. S. A.

Write:

COLUMBIA MOTOR CO.
245 W. 56 St., New York 19, N. Y., Circle 6-4844

EZEE U-JOINT GREASE KIT



DOES THE JOB IN 7 MINUTES

With new EZEE Kit it is unnecessary to remove or disassemble the U-Joints. Just puncture outer metal shell with the EZEE punch. Insert EZEE hollow injector needle. Attach grease gun and fill.

No. 131 EZEE U-JOINT GREASE KIT
Postpaid \$3.50

ATMARS TOOL CO.
Dept. MA, 3561 Lakeshore Ave., Oakland 10, Calif.

quick profits

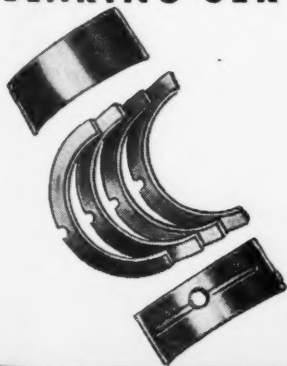


with the rings you know!

You can bank your profits on a job you do with CHROME-CONTROL LEAK-PROOF Piston Rings the very day it's finished because the job won't be back. They seat quick, they give quick customer satisfaction—and that adds up to quick profits.

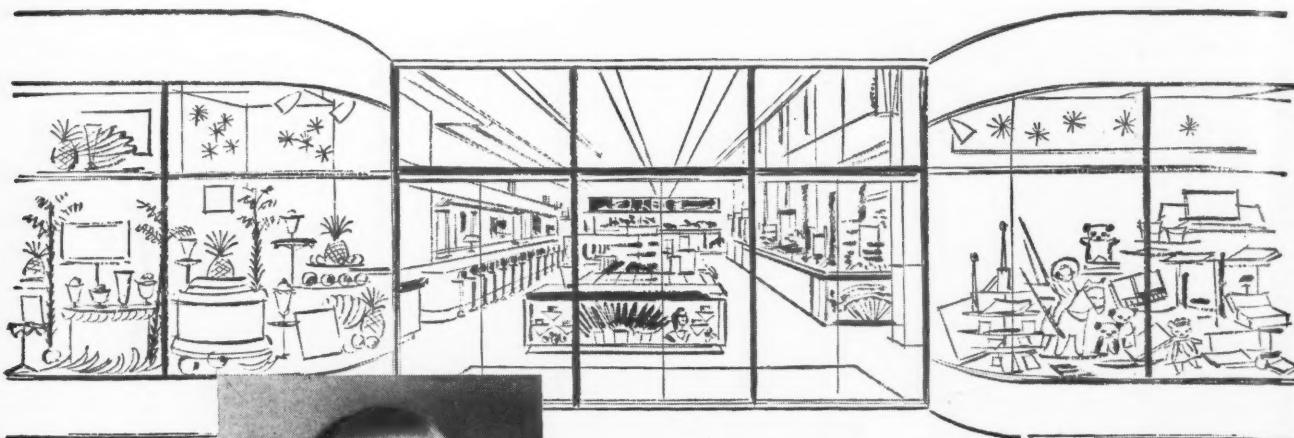
**McQUAY-NORRIS
BEARING SERVICE**

McQuay-Norris Manufacturing Company, St. Louis 10, Mo.



**CHROME-CONTROL LEAK-PROOF PISTON RINGS WILL
OUT-PERFORM ANY OTHER SET IN THE "HARD-TO-
HOLD" JOBS REGARDLESS OF KIND, DESIGN OR PRICE.**

S. S. KRESGE CO.



**F. P. Williams, President
S. S. Kresge Company**

"The key men and women of our organization

*regularly and thoroughly read Business Publications
...especially articles covering business trends in mer-
chandise and developments in the retail variety field."*

To carry Mr. Williams' thought a step further, men and women who have to keep their thinking a step ahead of their work have one common characteristic. They read thoroughly the publications that give them the most help.

Just as the Kresge executives follow their business publications for trends and developments in the lines of their special interests, so leaders in every field of business and professional activity study each issue of the business periodicals in their own fields.

Such regular and thorough reading is a tribute to the ability of editors and special writers to think in terms of tomorrow. Regular and thorough readership means, too, that the advertising pages of the Business Press form a direct sales channel for products and services that are sold to business and professional men.



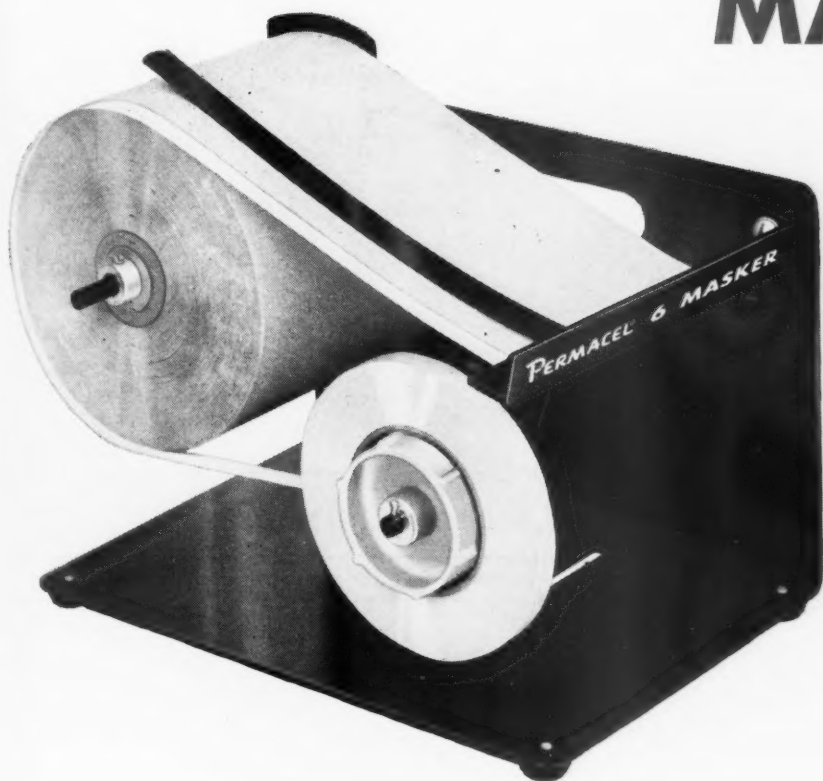
NATIONAL BUSINESS PUBLICATIONS, INC. 1001 Fifteenth Street, N. W., Washington 5, D. C. • STerling 3-7535

The national association of publishers of 165 technical, professional, scientific, industrial, merchandising and marketing magazines, having a combined circulation of 3,849,056...audited by either the Audit Bureau of Circulations or Business Publications Audit of Circulation, Inc....serving and promoting the Business Press of America...bringing thousands of pages of special-

ized know-how and advertising to the men who make decisions in the businesses, industries, sciences and professions...pin-pointing your audience in the market of your choice. Write for list of NBP publications and the latest "Here's How" booklet, "How We Use the Business Press and Why" by William C. Sproull, Director of Advertising of the Burroughs Corp., Detroit.



THE NEW PERMACEL 6 PORTABLE MASKER



**SPECIAL
INTRODUCTORY
OFFER
ONLY \$9⁹⁵**

When purchased with case of
Permacel Tape and six rolls of
3" or 6" masking paper . . .
For limited time only.

PERMACEL[®] TAPE

AND MASKING EQUIPMENT

*Permacel
7L Masker*



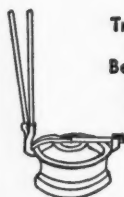
Permacel 8A Masker



a *Johnson & Johnson* company

Bishman Bead Breakers

Truck Tire
Remover
#860-C



Tractor, Truck,
Aircraft
Bead Loosener
and Tire
Remover
#922

Tubeless
Tire
Giant
Bead
Breaker
#918

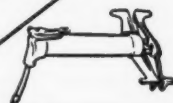


It Pays to Standardize on the Complete Line of BISHMAN Tire Service Equipment

Designed to make tire servicing faster, easier, more profitable. Over 25 years of experience backs all Bishman equipment and you have the advantage of one source of equipment and responsibility.

Tire Spreaders

Hydraulic
Tire Spreader
#425



Air Tire Spreader
#555

Bishman Tire and Tube Testers

Tubeless
Tire and Tube
Tester
#855-T



Tubeless
Tire Testers
4 Models
Also conversion
kits for tube testing tanks
#856



Tube Dunker
(tubes to 50" dia.)
Giant Tester for
tubes to 8' dia.

#820

#920

E-Z OFF
#815



ELECTRIC TIRE CHANGER

For tubeless, regular
tires and safety tubes.
Mounts and dismounts.
Cannot touch or
damage air seals.
SAFE—FAST

#880



Tire Lubricants

Bishman Bead Expanders

Anti-Friction type, #600
Also standard
type, #606



Bishman Vulcanizers



Tube Vulcanizer
8 1/2" capacity
#870



Tubeless
Tire
Vulcanizer
#930



Rub-Er-Slide
#882

You can get Bishman Equipment from leading jobbers and suppliers everywhere. Ask them for complete information or write direct.

BISHMAN Manufacturing Co. OSSEO 26, MINNESOTA

Did you know—? 80.7 per cent of—

MOTOR AGE Readers find helpful ideas in articles.

You can't judge a book by its cover, but you can gauge its net worth by what the reader obtains from its editorial content. And . . . 8 out of 10 MOTOR AGE readers find valuable tips, helpful ideas that so often prove to be profitable to them from the pages of their automotive service magazine.

65.7 per cent find them profit-producing.

I just saw the
NEW

COLUMBUS

Velvet-ride

SHOCK ABSORBERS

You've heard automotive men speculate about it...you've heard the American public unknowingly wish for it for many years. NOW, you can confidently and enthusiastically offer your customers the NEWEST, most EXCITING, shock absorber ever made.

On the outside, it's bright red in appearance for easy recognition. The familiar single tube, cavitation dome and bellows identify Velvet-ride as another outstanding COLUMBUS Shock Absorber.

Inside, the principle and quality of the famous COLUMBUS Luxury-ride is maintained. "Velvet" will deliver more control, add easier handling and in every respect outperform conventional standard-duty shocks of any brand. In COMFORT, COLUMBUS Velvet-ride is unsurpassed!

And on the SALES-SIDE—Velvet-ride offers you the greatest opportunity today to get in on the swelling demand for a better ride at a popular price. It's built RIGHT...priced RIGHT...it is RIGHT. COLUMBUS Velvet-ride—one of the world's 2 best shock absorbers.

See your Automotive Parts Jobber NOW or write for full details to Sales Department, Hockethorn Manufacturing and Supply Co., Littleton, Colorado

\$6⁹⁵

LIST (each)

By

• HECO •

makers of Shock Absorbers for Passenger Cars, Trucks, Farm and Military Vehicles and Industrial Equipment



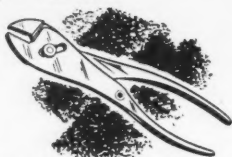
Mr. NUTS 'N BOLTS says...



Get a firmer grip on your work
with **GRIPSO**
Special feature **TOOLS**

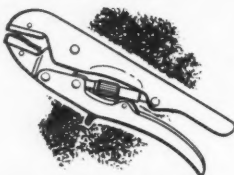
Multi-Duty PLIERS

Amazing new 3-piece design multiplies hand power 10 times. 4 position parallel jaws give non-slip grip on nuts, bolts, anything—in hard to reach places.



Trigger-Matic VISE PLIERS

Sheer mechanical magic! Locks on with 1 ton grip, releases instantly, gently with touch of the finger. Five tools in one. Designed to do more work easier and faster for the home craftsman.



Gripso-Matic PIPE WRENCH

A flick of the wrist, a tap of the hand—pipe turns instantly, perfectly. Streamlined—lightweight, works twice as fast as other pipe wrenches. A brute for strength.



All tools guaranteed

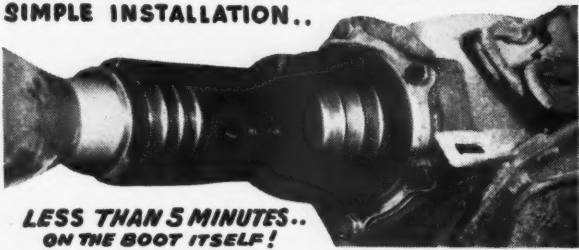
See your dealer or write H. R. BASFORD CO.
Dept. M-7 235-15th St., San Francisco, Calif.

SEALS
the Coupling!
SAVES
the Customer!

**DAVIS
BALL
BOOT**

Pat. No. 2,702,996

SIMPLE INSTALLATION..



**LESS THAN 5 MINUTES..
ON THE BOOT ITSELF!**

Ends

**LUBRICANT
LOSS**

**DIRT
INTRUSION**

**CUSTOMER
COMEBACKS**

AT 14 Million Chevrolet Bell Housings!

Because it's A Natural in NEOPRENE!

Application: 1937-54, Standards, Power Glide, ½ Ton + GMC

— Your JOBBER HAS IT.. or HE SHOULD! —

DAVIS BALL BOOT CO. INC.

2301 Yale St. • Houston 8, Texas

Buy
FROM THE MANUFACTURER

Who makes its own...

- Brake Shoes (Bonded)
- Brake Shoes (Unlined)
- Brake Lining (Sets and Rolls)
- Brake Lining (for bonding)

For all cars
Jobbers in all principal cities

L. J. MILEY CO.

18 S. SANGAMON ST.
CHICAGO 7, ILLINOIS

FACTORIES AT CHICAGO AND
NORTH MANCHESTER, INDIANA

MOTOR AGE



*The Quality
Magazine
of the Automotive
After-Market*

The **PIONEER** Tool

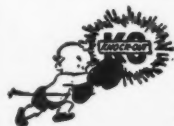
FOR INSTALLING VALVE SEAT RINGS

The Biggest
Seller



THE FIRST . . . and still the **MOST POPULAR**, **MOST PRACTICAL**, **SIMPLEST**, **MOST UNIVERSAL** tool of its kind made.

EVERLASTING . . . the first tools made over 25 years ago are still in service.



K.O. LEE CO.

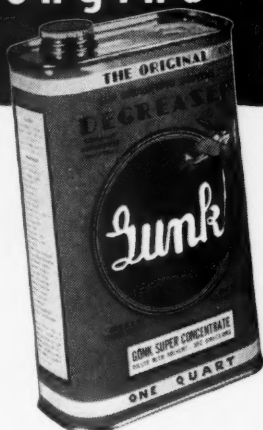
ABERDEEN, SOUTH DAKOTA

If it's made by Lee it's a "Knock-Out"

DEGREASER!

engine shampoo

QT. SIZE CONCENTRATE
MAKES 2 GALLONS



SPRAY OR BRUSH ON

Takes clog out of oil and grease
. . . emulsifies it . . . so that all

dirt may be hosed off as easily as you rinse hands under water faucet. Launders engines faster, more completely, and safer than steam cleaning (warm the engine). Self scouring action brings out factory new appearance . . . provides accurate visual inspection . . . Gunked engines run cooler. Genuine Gunk is sold in bulk sizes at better automotive wholesalers everywhere. Retail sizes may be obtained at Western Auto Stores and Associate stores.

Try it today!



OWNERS OF NEW CARS IN POPULAR
PASTEL COLORS CAN'T RESIST

HULL AUTO COMPASSES IN NEW CAR TONES

IT'S BRAND NEW in Hull Auto Compasses! These famous, precision instruments are now available in a six-color range of NEW CAR TONES to match or blend with the brighter finishes of most new cars. Color-conscious owners cannot help but purchase these sparkling new Hulls that so obviously "belong" in their late model autos. Actually, it's a brand new market for Hull Compasses. The new colors do not, in any sense, replace standard Hull finishes, which are universal in appeal, and which will continue to be supplied. But countless motorists who have, thus far, failed to buy Hulls for their important driving advantages will now hurry to your counters for HULL AUTO COMPASSES IN NEW CAR TONES!

HERE ARE THE NEW COLORS

- LIGHT GREEN ● BLUE ● OFF-WHITE
- YELLOW ● CORAL ● BLUE-GREEN

Order No. 650 Beaconlite Assorted New Car Colors or No. 550 Streamline Assorted New Car Colors for one of each color in half-dozen cartons; or specify individual colors desired in either model number.

AVAILABLE FREE

(With Orders for 2 dozen or more)

Attractive New Counter or Window Display to Stop Customer Traffic. Holds Complete Assortment of Six of Either Model.

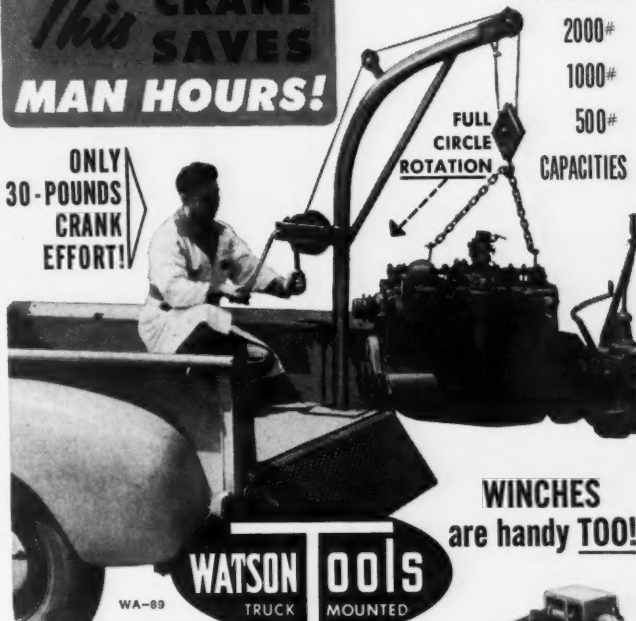
WRITE FOR COMPLETE DETAILS, FULL-COLOR ILLUSTRATION

HULL MANUFACTURING CO.

P. O. BOX 246, V-7 WARREN, OHIO

This CRANE SAVES MAN HOURS!

ONLY
30-POUNDS
CRANK
EFFORT!



AVAILABLE IN
2000#
1000#
500#
CAPACITIES

WATSON TOOLS
TRUCK MOUNTED

MA-7

H. S. WATSON COMPANY
1316 - 67th St., Emeryville, California

Please send information on Watson Truck Tools and name of your nearest distributor.

- ☐ TRUCK CRANES ☐ POST HOLE DIGGER
- ☐ HAND WINCHES ☐ REAR POWER SOURCE
- ☐ UTILITY PUMP ☐ HELPER TRANSMISSIONS

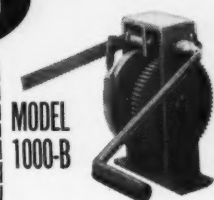
Name _____

Address _____

City _____

State _____

MODEL
1000-B



With 6-inch band
brake & needle bearings.
1000# Capacity

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THE 12 VOLT BATTERY MUST BE WATCHED!!!

That's the heading of our latest Blue Streak Service Bulletin. This bulletin contains a lot of information, details, and hints on the new 12 volt car system--information that can result in greater service opportunities for you because of the extra precautions and services that must be performed in the handling of the 12 volt battery. Here are a few condensed and illustrated excerpts from the bulletin.



Leakage of electrolyte

on top of the battery will discharge a 12 volt battery FOUR times as fast as the 6 volt battery.
TO PREVENT THIS CURRENT DISCHARGE...

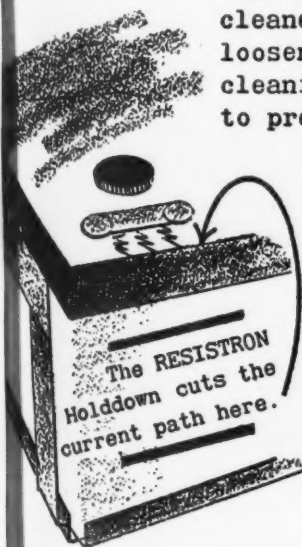
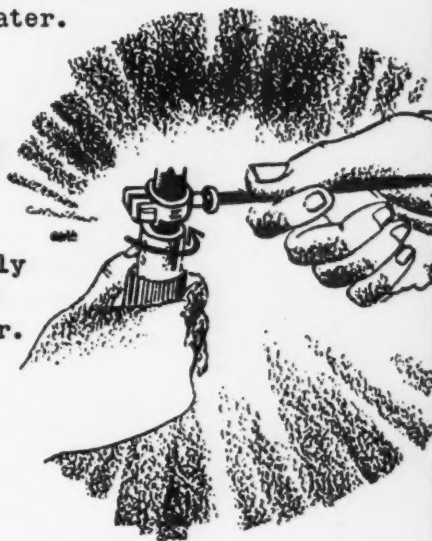


Clean the battery

with dilute ammonia or soda solution...
Brush solution off with clean water.

Clean corrosion

around the posts and terminals with a wire brush cleaner like the BLUE STREAK BP-71 after loosening and removing the cables. After thoroughly cleaning, tighten the battery cables on the posts to prevent undercharge and damage to the regulator.



to insure against

current leakage to the ground install an INSULATED BLUE STREAK RESISTRON Battery Holddown. Because it is insulated with neoprene the RESISTRON cuts the path of the current. It will last longer than the life of the car because it is non-corrosive.

When you do these things point them out to your customers and you, too, will profit from the same satisfied trade that 40,000 BLUE STREAK Registered Dealers enjoy! BLUE STREAK Service Bulletins are mailed regularly to all Blue Streak Registered Dealers. If you are not a Registered Dealer write for a free copy of the complete Service Bulletin 83-55, "The 12 Volt Battery Must Be Watched." No obligation

Write to:

Dept. MA 83, STANDARD MOTOR PRODUCTS, INC.,
37-18 Northern Blvd., Long Island City 1, New York

The Last Laugh



"I know I'm not really much to look at," admitted her fiancé.

"Oh, well," she philosophized, "you'll be at work most of the time."

Salespeople can be placed in three classes: the few who make things happen; the many who watch things happen; and the overwhelming majority who have no idea what has happened.

If you give some women enough rope, they'll rig another clothesline in the bathroom.

Young Man: How about some old-fashioned loving?"

Sweet Young Thing: All right, I'll call grandmother down for you.

Then, of course, there is the butcher who backed into his meat grinder, and got a little behind in his work.



"Whew! that taxi driver made my hare stand on end!"

In a small country town a drunk staggered out of a bar. Looking around in some confusion, he finally spotted the town's only taxicab and struggled into the back seat.

"Take me to Charley's place, driver," he said.

"Son, you're in front of Charley's place now," replied the driver.

"O.K., Mac," said the drunk as he staggered out of the cab again. "But next time don't drive so fast!"

Molly: "When are you going to wear that lovely lingerie you got for your birthday?"

Dolly: "Oh, I'm saving that for a windy day."

"Two!" shouted the pint-sized umpire.

"Two what?" snarled the big catcher.

"Yeah, two what?" echoed the equally large batter.

"Too close to tell," said the umpire.

A firm, advertising their product, once stated: "Money returned if not satisfactory."

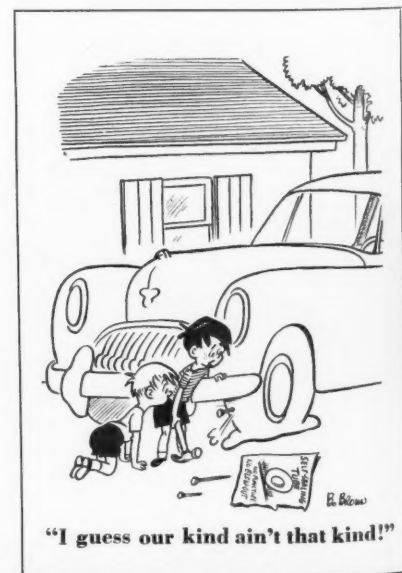
Someone applied for the return of his money, and the reply he received was: "Your money is quite satisfactory and therefore we decline to return it."

No one should try to do two things at once, and this includes women who put on weight and slacks at the same time.

Did you hear the one about the dentist who married the manicurist and they've been fighting tooth and nail ever since?

There's a big difference between a horse race and a political race. In a horse race the entire horse runs.

"Many a guy cooks his goose when he starts chasing a chicken!"



Extra Dividend in EVERY box

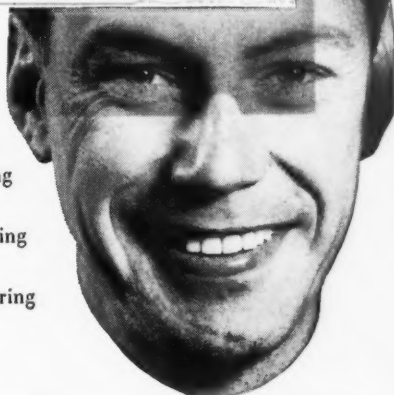
**RAMCO'S
ENGINEERING
LEADERSHIP**
*in Piston Ring Advancements
designed to Compensate
for Engine Wear*

EXTRA DIVIDEND

C Piston Ring Sets featuring
Duomatic Action

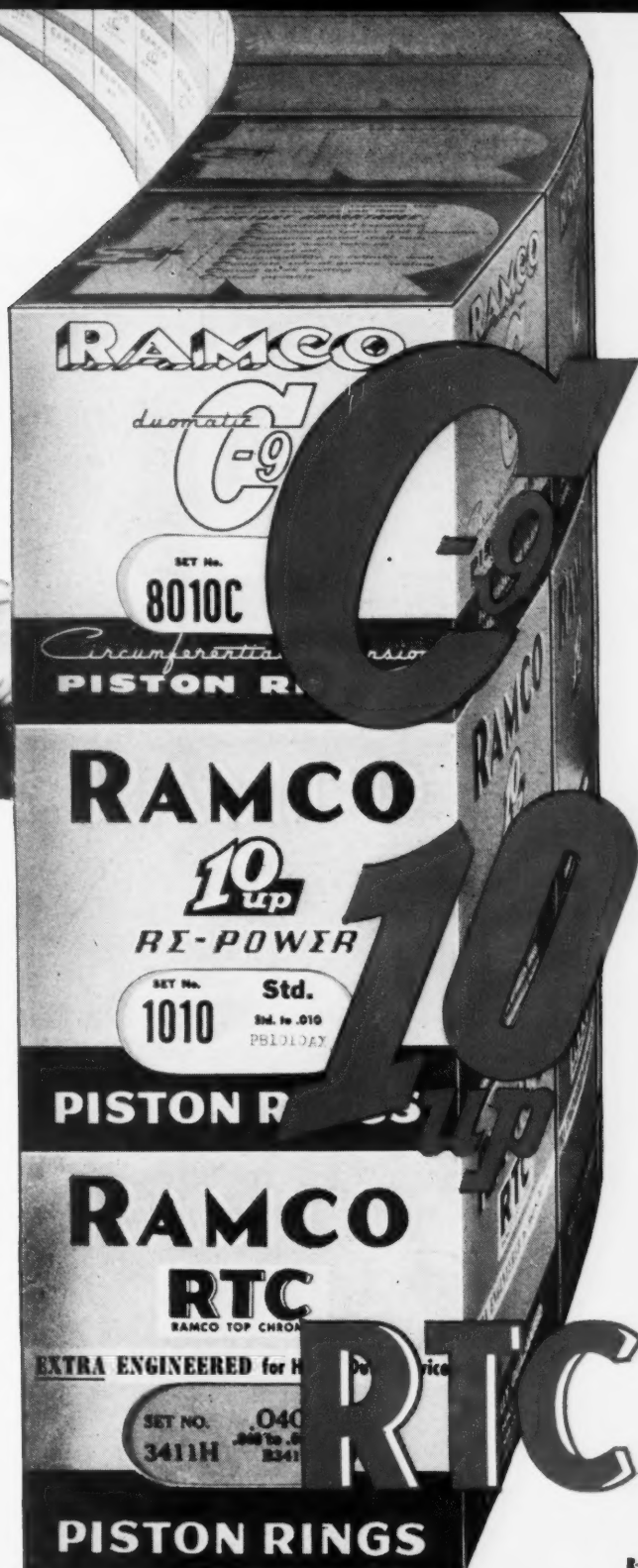
10_{up} Piston Ring Sets featuring
No Gap Spiro-Seal

RTC Piston Ring Sets featuring
Super-Fine Chrome Finish



Compensation for wear! With Ramco you get rings with the extra engineering to compensate for the wear existing in the engine. This compensation is accomplished through advanced design, rather than reliance on excessive pressures! No matter whether the wear is waviness of the cylinder wall, taper, out-of-roundness, or any combination of these wear conditions, you can depend on Ramco rings to automatically compensate for them.

This is typical of the extra dividends you get in every Ramco box. It is engineering leadership that profits your customer with extra performance—and builds your reputation for expert, superior repair work.



R-92

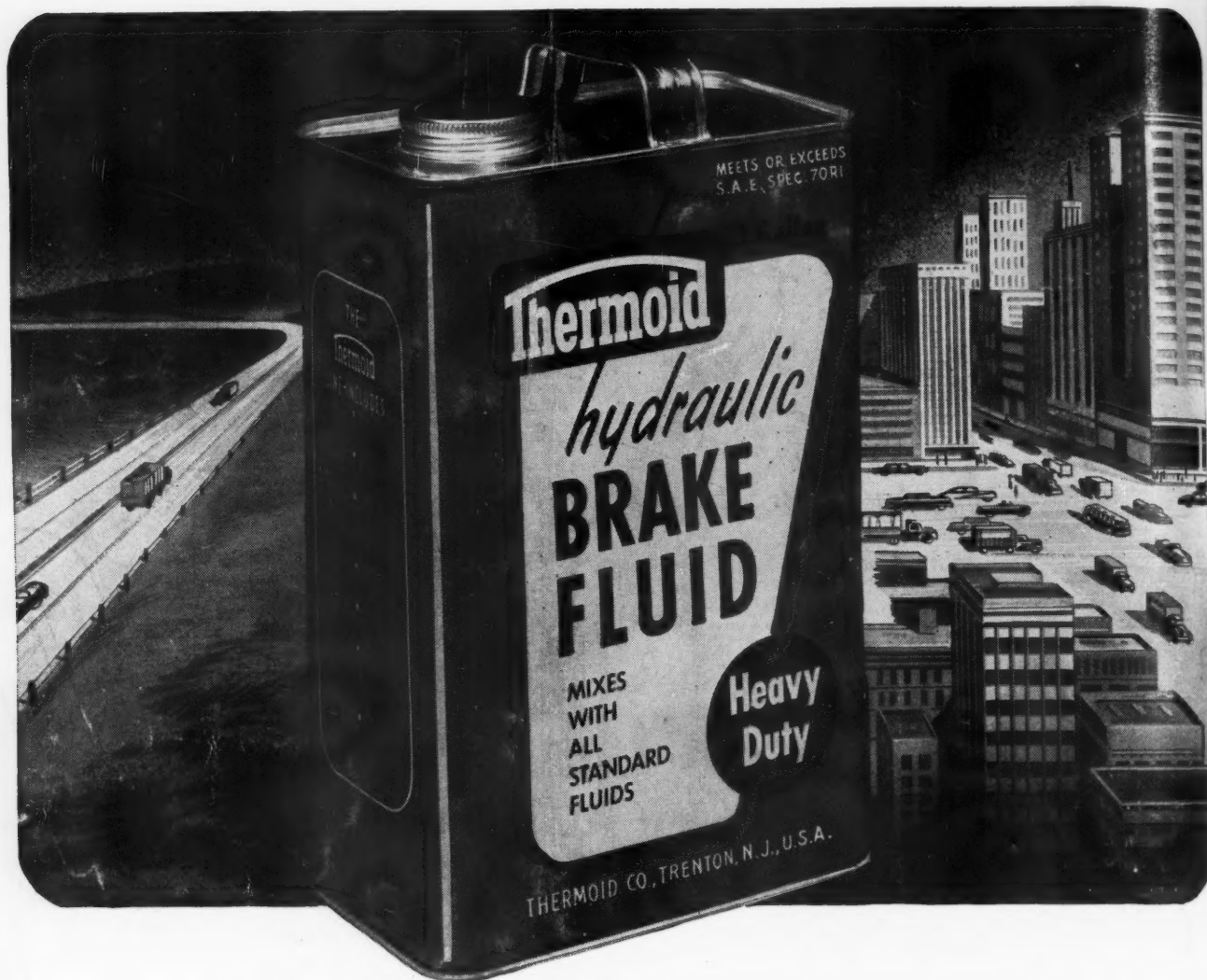
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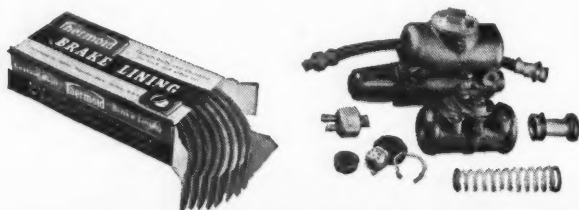
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